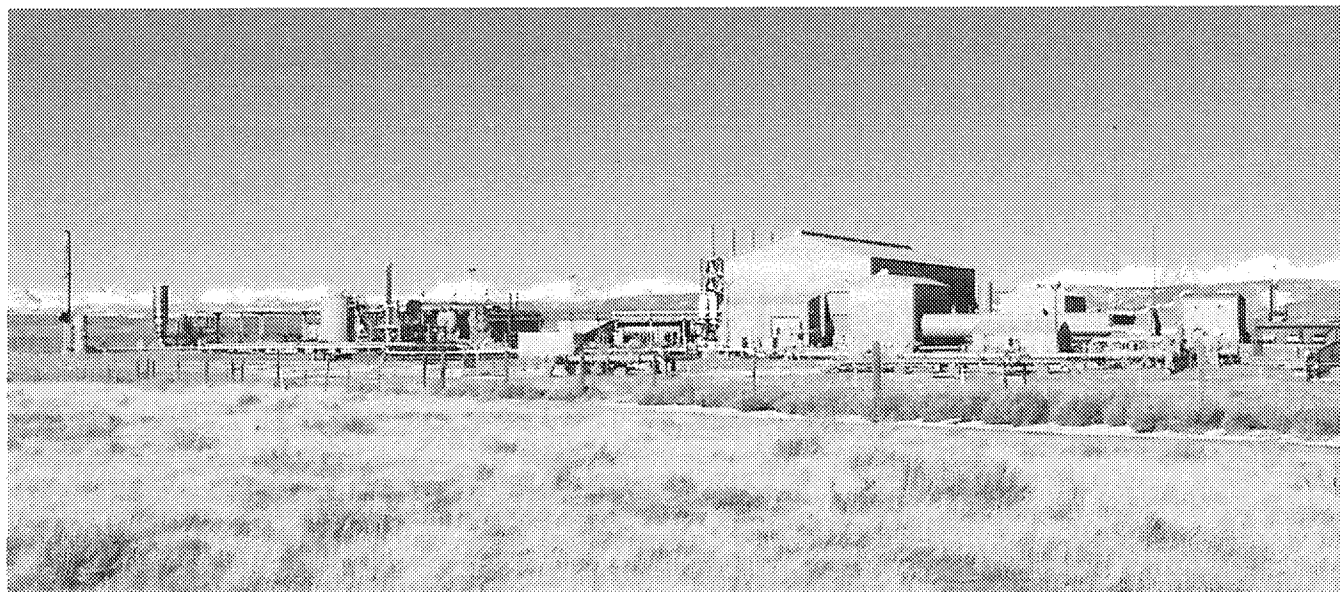


# WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY

## Air Quality Division Annual Inspection Report for

### Enterprise Jonah Gas Gathering Company LLC Falcon Compressor Station

FY - 2018



Facility Information				
Company	Enterprise Jonah Gas Gathering Company LLC		AFS: 5603500018	
Facility	Falcon Compressor Station		Facility ID: F002344	
Mailing Address	P.O. Box 4324	City: Houston	State: TX	Zip: 77210
Facility Location	42.52438, -109.67407			
Process Type	Gas Compression			
Facility Class	Major			
Operating Permit	P0021864	Issued: 9/11/2017	Expiration Date: 9/11/2022	
Responsible Official	Graham Bacon	Tel. (713) 381-6595		
Inspection Information				
Inspection Date	2/13/2018		Previous Inspection Date: 4/14/2016	
Company Representative(s)	Brian Stone, Environmental Manager; Jim Pilon, Senior Field Environmental Scientist; Ray Pape, Ops Supervisor; Elmer Eaker, Ops Supervisor; Jordan Kowart, Operator			
	Name	Title/Position	Initial	Date
WAQD Inspector	Cindi Etcheverry	Air Quality Specialist	CEE	5/17/2018
WAQD Staff Review	Jeff Wendt	District 5 Engineer	JWW	5/31/2018
	Lars Lone	Compliance Program Manager	LL	6/4/18
	Nancy Vehr	Air Quality Division Administrator	NV	6/5/18
Compliance Status	This facility was found to be operating in compliance with applicable Wyoming Air Quality Standards and Regulations.			

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Compliance Status	This facility was found to be operating in compliance with applicable Wyoming Air Quality Standards and Regulations.			

## AIR QUALITY CONCERNS

One (1) air quality issue was noted and summarized below.

## INSPECTION SUMMARY

This was an announced and scheduled air quality compliance inspection of the Falcon Compressor Station, owned and operated by Enterprise Jonah Gas Gathering Company LLC (Enterprise). The facility was inspected February 13, 2018. Enterprise was represented by Brian Stone, Environmental Manager; Jim Pilon, Senior Field Environmental Scientist; Ray Pape, Operations Supervisor; Elmer Eaker, Operations Supervisor; and Jordan Kowart, Operator.

Wyoming Department of Environmental Quality, Air Quality Division was represented by Cindi Etcheverry, Air Quality Specialist in the Pinedale Field Office. Inspection of the Falcon Compressor Station consisted of a records review, permit conditions review, and facility inspection. Records from the Divisions' IMPACT system were reviewed prior to the inspection. The permit was reviewed prior to the facility inspection and reviewed with facility representative(s) during the facility inspection.

- **RECORDS REVIEW.** The facility identification number is F002344. Wyoming Air Quality Division records were reviewed from April 15, 2016 through February 13, 2018 to obtain historical information concerning previous air quality concerns, complaints, State enforcement actions, and new permits. No concerns were noted during the records review.
- **OPERATING PERMIT REVIEW.** Operating permit P0021864, issued September 11, 2017, was evaluated for compliance during this inspection period. MD-11561, issued December 9, 2011 is still applicable except conditions 23 and 32 have been superseded by NSR permit P0021864, issued June 21, 2016. One (1) issue was noted during permit review:

**Concern:** Permit condition F23, Fugitive Equipment Leak VOC Emissions Reports are to be submitted by March 1 of each calendar year. CRPT013162 was received by the Division May 31, 2016 for reporting period 2015. The report was submitted 92 days after March 1, 2016.

**Corrective Action:** Reports are to be submitted by March 1 of each calendar year.

- **FACILITY INSPECTION.** The facility inspection consisted of confirmation of equipment at the facility, visible emission observations, and compliance with permit conditions. No concerns were noted during the records review.

### **Facility Description Process**

This facility is a major source as defined by Chapter 6, Section 3 (Title V) of the Wyoming Air Quality Standards and Regulations (WAQSR).

The Falcon Compressor Station is a production field compressor station with condensate truck loading. The compressor station gathers and compresses gas from surrounding gas wells. Field gas is transported to the Falcon facility through four trunk lines that enter the facility at pig receivers. This gas is fed to slug catchers and inlet separators then fed to the main compression equipment. Gas is discharged from compression to a trunk line that transports gas to the Jonah Bird Canyon Compressor Station for additional compression. No gas dehydration occurs at the Falcon facility.

Pipeline liquids are separated from the inlet gas streams by a series of slug catchers and inlet separators. The liquids are then processed through a flash tank and stabilization tower. Vapors from the liquid stabilization process are recovered and then reenter the facility gas stream. Stabilized liquids are transferred to the pressurized horizontal condensate storage vessels where they are held until removed from the facility via tanker truck. Any vapors from the storage vessels are controlled by the combustion chamber unit. The pressurized storage vessels allow for better control of liquid flashing emissions and help to prevent excess emission events during periods of high pipeline liquid receipt.

### **RECORDS REVIEW**

Enterprise is providing records and communications as Falcon Compressor Station, and is not submitting records through IMPACT. All pertinent records provided to the Division are placed into Falcon Compressor Station (F002344) in IMPACT for this facility.

### **Inspection History**

INSP006007 – April 14, 2016. One (1) concern was noted in the inspection report. The concern has not been resolved. During the 2016 facility inspection (INSP006007), the flare thermocouple, continuous recording devise, and visual alarm system indicated one of the LP TCI 4000 combustor pilots went out. Facility representatives indicated the pilot sometimes shows that it has gone out; however, wind can blow pilot heat away from the thermocouple causing the pilot to appear to be out. Representatives also indicate the pilot may have gone out so personnel visually check the pilots during each alarm. If one of the pilots goes out, the combustor may not operating as manufacturer designed at the required efficiency rate. Because of the pilot concern, Enterprise was requested to provide a written plan to prevent pilot flame outages and ensure the combustor is operating at ninety-eight percent (98%) destruction efficiency. The plan was not provided despite follow-up reminders and requests for the plan.

INSP005977 – October 3, 2014. The facility was found to be operating in compliance with applicable Wyoming Air Quality Standards and Regulations. The inspection consisted of a review of permit conditions and a file review. A full facility inspection was not conducted since the facility was under reconstruction.



INSP004661 – March 13, 2013. Three (3) concerns were noted in the inspection report. Those included permit discrepancies and facility name change.

INSP003838 – February 28, 2011. One (1) concern was noted in the inspection report. VOC flash emissions from the condensate storage tanks may not be controlled as much as they could be. The concern has since been resolved by installing a continuous monitor for the presence of a pilot flame, using a thermocouple and continuous recording device to detect the presence of a flame.

INSP002330 – November 4, 2005. Three (3) concerns were noted in the inspection report. The pilot flame of the combustor stack was out. An estimation of VOC and HAP emissions vented was requested. An additional source was not listed on the Divisions list of sources and needed to be added. An additional condensate storage tank needed to be include in increased potential emissions for the additional condensate storage tank.

INSP001687 – October 15, 2002. Record is available in hard copy at the Division.

### **Compliance Report History**

Compliance report history in IMPACT from April 15, 2016 through February 13, 2018.

CRPT027064 – February 5, 2018. 2017 annual equipment leaks report fugitive VOC emissions.

CRPT026854 – January 29, 2018. 2017 second semiannual 40 CFR 60 Subpart KKK LDAR report.

CRPT026848 – January 29, 2018. 2017 second semiannual 40 CFR 630 Subpart ZZZZ report.

CRPT026805 – January 29, 2018. 2017 second semiannual 40 CFR 60 Subpart Kb report.

CRPT026773 – January 29, 2018. 2017 second semiannual Monitoring and Deviation report.

CRPT026772 – January 29, 2018. 2017 annual Compliance Certification.

CRPT026496 – January 22, 2018. 2018 annual 15-day notification of engine testing and protocol.

CRPT025471 – December 4, 2017. 2017 notification of fire eye malfunction causing ESD release.

CRPT025298 – November 24, 2017. 2017 notificiation of shutdown and removal of VRU.

CRPT025180 – November 20, 2017. 2017 notification of equipment malfunction, ESD.

CRPT022885 – July 31, 2017. 2017 first semiannual 40 CFR 60 Subpart KKK LDAR report.

CRPT022863 – July 31, 2017. 2017 first semiannual 40 CFR 60 Subpart Kb report.

CRPT022860 – July 31, 2017. 2017 first semiannual Monitoring and Deviation report.

CRPT022835 – July 24, 2017. 2017 first semiannual 40 CFR Part 63 Subpart ZZZZ report.

CRPT020508 – March 16, 2017. 2016 annual fugitive equipment leak VOC emissions report.

CRPT018686 – January 30, 2017. 2016 annual Compliance Certification.

CRPT018684 – January 30, 2017. 2016 second semiannual Monitoring and Deviation report.

CRPT018372 – January 26, 2017. 2016 second semiannual 40 CFR 60 Subpart Kb report.

CRPT018360 – January 26, 2017. 2017 annual 15-day notification of engine testing and protocol.

CRPT018349 – January 26, 2017. 2016 annual Compliance Certification.

CRPT018142 – January 24, 2017. 2016 second semiannual 40 CFR 60 Subpart KKK LDAR report.

CRPT018036 – January 23, 2017. 2016 second semiannual 40 CFR 63 Subpart ZZZZ report.

CRPT014532 – August 1, 2016. 2016 first semiannual 40 CFR 60 Subpart Kb report.

CRPT014424 – August 1, 2016. 2016 first semiannual 40 CFR 60 Subpart KKK LDAR report.

CRPT014418 – August 1, 2016. 2016 first semiannual Monitoring and Deviation report.

CRPT014284 – July 26, 2016. 2016 first semiannual 40 CFR 63 Subpart ZZZZ report.

CRPT 013162 – May 31, 2016. 2015 annual fugitive equipment leak VOC emissions report.

#### **Site Visit History**

Site visit history in IMPACT from April 15, 2016 through February 13, 2018.

SITE001381 – March 9, 2017. FLIR monitoring of facility and combustion device(s).

SITE001035 – May 18, 2016. Complete photo documentation.

#### **Correspondence History**

Correspondence history in IMPACT from April 15, 2016 through February 13, 2018.

COR068402 – February 9, 2018. Notification per permit condition G19 of P0021864. Station shut down while a Controls Specialist was working on Delta-V security patches and updates.

COR063955 – November 29, 2017. Notification per permit condition G19 of P0021864. Emergency shut down (ESD) earlier that day. Preliminary investigation indicates the fire eye on the #1 generator caused the ESD; however, Pilon will submit a detailed explanation and plan for preventing future incidents.

COR063586 – November 13, 2017. Notification per permit condition G19 of P0021864. Station blew down on emergency shutdown due to a fire eye on the Unit #1 turbo charger. The fire started when coolant from a broken stainless steel line came in contact with the hot turbo charger. There was no permanent damage. Repairs were made to the unit and the station was restarted.

### **Permit and Waiver History**

All permits are listed to document the permitting history.

**\*\* Obsolete, expired, or superseded permits.**

#### **Operating Permit P0021864 (9/11/2017)**

Title V permit operating permit for Enterprise Jonah Gas Gathering Company LLC, Falcon Compressor Station. This permit supersedes 3-0-211.

#### **P0021057 (6/21/2016)**

NSR Permit to modify the Falcon Compressor Station by updating fugitive emissions based upon an updated component count completed at the facility, and reclassifying the existing emergency flare to a process flare. Supersedes Conditions 25 and 32 of Permit MD-11561 regarding the flare and fugitive VOC emissions.

#### **\*\*Waiver wv-13246 (4/4/2012) EXPIRED**

Extended temporary operation until December 6, 2012, for one (1) 130 hp John Deere 6068HF285 and one (1) 90 hp John Deere 4045TF275 diesel generator engine to provide additional power for heat and lights for the investigation and recover after the fire. Temporary emissions from the two (2) engines are 8.4 tons of NO<sub>x</sub>, 4.6 tons of CO, 0.9 tons of VOC, 0.05 tons of formaldehyde.

#### **\*\*Waiver wv-12835 (12/13/2011) EXPIRED**

Temporary waiver for the installation of one (1) 130 hp John Deere 6068HF285 diesel generator engine to provide additional power for heat and lights for the investigation and recovery after the recent fire. Temporary emissions from the Tier 3 certified John Deere 6068HF285 engine are 1.0 tons of NO<sub>x</sub>, 1.5 tons of CO, 0.3 tons of VOC, 0.01 tons of formaldehyde. Waiver expires four (4) months after start-up (April 10, 2012).

#### **Permit MD-11561 (12/9/2011) CONDITIONS 25 AND 32 ARE SUPERSEDED**

Replaced four (4) 400 bbl condensate storage tanks with three (3) 1,000 bbl horizontal condensate storage tanks, authorizing pigging activities, revising the fuel gas heater capacity to 1.6 MMBtu/hr, and updating facility emissions. This permit supersedes all previous permits and waivers. Conditions 25 and 32 of this permit are superseded by P0021057.

#### **\*\*Waiver wv-12794 (12/8/2011) EXPIRED**

Granted one (1) temporary 90 hp John Deere 4045TF275 diesel generator engine to provide heat and lights for the investigation and recovery after a recent fire. Waiver expires four (4) months after start-up of the diesel engine. Total temporary emissions are 3.1 tons of NO<sub>x</sub>, 0.7 tons of CO, 0.2 tons of VOC, 0.01 tons of formaldehyde.

#### **\*\*Waiver wv-12075 (6/3/2011) EXPIRED**

Permitted temporary operation of one (1) 102 hp John Deere 4045 diesel fired generator.

#### **\*\*Operating Permit 3-0-211 (1/30/07) EXPIRED**

Title V Operating Permit issued in accordance with Chapter 6, Section 3 of the Wyoming Air Quality Standards and Regulations. Expired January 30, 2012.

**\*\*Permit MD-1186 (7/19/2005) SUPERSEDED**

Modification of operations by replacing a 354 hp Caterpillar G3412TA generator (G1) and a 930 hp Caterpillar G399TA generator (G4) with a 1,800 hp Caterpillar G3516BLE generator (G6).

**\*\*Permit MD-1104 (12/28/2004) SUPERSEDED**

Modify operations at the Falcon Compressor Station with the addition of one (1) 3,668 hp Caterpillar G3612LE compressor engine and one (1) 1,800 hp Caterpillar G3516B compressor engine.

**\*\*Permit MD-1004 (6/1/2004) SUPERSEDED**

Modify operations with the addition of one 3668 hp Caterpillar G3612LE compressor engine. JGCC is also revising the horsepower ratings of the existing Caterpillar G3612LE engines from 2936 hp to 3668 hp, revising the hot oil heater from the originally permitted 2.5 MMBtu/hr to the manufacture nameplate of 3.8 MMBtu/hr and adding one 400 bbl condensate tank, one 400 bbl produced water tank, and one 0.25 MMBtu/hr heater.

**\*\*Permit MD-815 (10/8/2002) SUPERSEDED**

Allow modification of operations at the station with the addition of one 930 hp Caterpillar G399TA engine, a condensate stabilization unit, one 256 hp Caterpillar G3406TA engine, and a 2.25 MMBtu/hr heater.

**\*\*Waiver AP-UU2 (3/21/2002) EXPIRED**

Modify operations with the addition of a 400 hp or less backup generator. The generator will be tested for NOx and CO within 90 days of start-up, and limited to 500 hours of operation per year.

**\*\*Waiver AP-4C1 (6/1/2001) EXPIRED**

To temporarily install one (1) 1354 hp Waukesha 7042 GL engine for a maximum of six (6) months of operation prior to the installation of the engines permitted under CT-2251.

**\*\*Construction Permit CT-2251 (2/23/2001) EXPIRED**

To construct a compressor station consisting of four (4) Caterpillar 3612LE compressor engines equipped with oxidation catalysts, one (1) Caterpillar 3412LE engine equipped with an oxidation catalyst, one (1) Onan emergency generator and associated condensate handling equipment.

## **OPERATING PERMIT REVIEW**

The Division issued P0021864 on September 11, 2017. P0021057 on June 21, 2016, and MD-11561 on December 9, 2011. These permits are applicable at this time except for Conditions 25 and 32 in MD-11561 have been superseded by P0021057.

The Falcon Compressor Station, is a major source of criteria and hazardous air pollutants. The facility is permitted under WAQSR) Chapter 6, Section 3 (Title V) operating permit P0021864. Permitted emission sources at the facility include six 3,668 hp Caterpillar G3612TALE compressor engines (units ENG001-ENG006); one 245 hp Caterpillar G3406TA VRU compressor engine (unit ENG010); two 1,800 hp Caterpillar G3516BLE generator engines (units ENG013 and ENG014);

one 3.8 MMBtu/hr hot oil heater (unit HET001); one 1.6 MMBtu/hr fuel gas heater (unit HET002); one precess flare (unit FLR001/FLA004); one combustion chamber (unit FLR002/FLA003); three 1,000 bbl horizontal storage tanks (units TNK001-TNK003); pneumatic controllers (unit PNE001); condensate loading operations (unit LUD001); compressors blowdown activities (unit BVC004); and fugitives (units FUG001, FUG003, and FUG004). One 400 bbl produced water tank (unit TNK004) at the facility does not have any applicable requirements based on its size. Each Caterpillar engine is equipped with a catalyst. The compressor station is a major source for NO<sub>x</sub>, VOC, and HAP emissions.

### Facility Emission Unit Summary

This table may not include any or all insignificant activities at this facility. The IMPACT ID's in the below table reflect the IMPACT facility inventory on June 2, 2017.

Company ID	IMPACT ID	Type	DESCRIPTION	CH 6, SEC 2 PERMITS
E1	ENG001	EU	3,668 hp Caterpillar G3612TALE (4SLB) Compressor Engine	MD-11561
	OXI002	CE	Oxidation Catalyst	
E2	ENG002	EU	3,668 hp Caterpillar G3612TALE (4SLB) Compressor Engine	MD-11561
	OXI003	CE	Oxidation Catalyst	
E3	ENG003	EU	3,668 hp Caterpillar G3612TALE (4SLB) Compressor Engine	MD-11561
	OXI001	CE	Oxidation Catalyst	
E4	ENG004	EU	3,668 hp Caterpillar G3612TALE (4SLB) Compressor Engine	MD-11561
	OXI004	CE	Oxidation Catalyst	
E5	ENG005	EU	3,668 hp Caterpillar G3612TALE (4SLB) Compressor Engine	MD-11561
	OXI005	CE	Oxidation Catalyst	
E6	ENG006	EU	3,668 hp Caterpillar G3612TALE (4SLB) Compressor Engine	MD-11561
	OXI006	CE	Oxidation Catalyst	
G5	ENG013	EU	1,800 hp Caterpillar G3516BTALE (4SLB) Generator Engine	MD-11561
	OXI007	CE	Oxidation Catalyst	
G6	ENG014	EU	1,800 hp Caterpillar G3516BTALE (4SLB) Generator Engine	MD-11561
	OXI008	CE	Oxidation Catalyst	

Company ID	IMPACT ID	Type	DESCRIPTION	CH 6, SEC 2 PERMITS
VRU	ENG010	EU	245 hp Caterpillar G3406TA (4SRB) VRU Compressor Engine	MD-11561, P0021057
	CNC001	CE	AFRC and NSCR catalyst	
CU-1	FLR002	EU	TCI 4000 Combustion Chamber Pilot	MD-11561
	FLA003	CE	TCI 4000 Combustion Chamber	
PF-1	FLR001	EU	Process Flare Pilot	P0021057
	FLA004	CE	Process Flare	
H1	HET001	EU	3.8 MMBtu/hr Hot Oil Heater (indirect heat)	MD-11561
H2	HET002	EU	1.6 MMBtu/hr Fuel Gas Heater (indirect heat)	MD-11561
T1-T3	TNK001-TNK003	EU	(3) Horizontal Storage Tanks 1,000 bbl each	MD-11561
	FLA003	CE	TCI 4000 Combustion Chamber	
T5	TNK004	EU	400 bbl Produced Water Storage Tank	MD-11561
RPV	FUG003	EU	Distance Piece Vent (a.k.a. Compressor Cylinder Rod Packing Vents) Leaks	MD-11561
F-1	FUG001	EU	Fugitive Emissions	P0021057
L-1	LUD001	EU	Truck Loading	MD-11561
P-1	PNE001	EU	Pneumatic Equipment	MD-11561
PG	FUG004	EU	Pigging Activities	MD-11561
BD	BVC004	EU	Compressor Blowdown	MD-11561

### Permit Condition Status

Operating permit P0021864 was reviewed for compliance. Where applicable, P0021057 and MD-11561 were also reviewed.

### Facility-Wide Permit Conditions

#### (F1) FACILITY ENGINE CONFIGURATION REQUIREMENTS

[WAQSR Ch 6, Sec 3(h)(i)(I); Ch 6, Sec 2 Permit MD-11561]

- (a) The facility shall be limited to no more than nine engines consisting of the following:
  - (i) Six Caterpillar G3612TALE compressor engines, ENG001-ENG006 (E1-E6), each equipped with an oxidation catalyst.
  - (ii) One Caterpillar G3406TA VRU compressor engine, ENG010 (VRU), equipped with an AFRC and NSCR catalyst.
  - (iii) Two Caterpillar G3516BLE generator engines, ENG013 and ENG014 (G5 and G6), each equipped with an oxidation catalyst.

- (b) Once removed from the facility, an engine cannot be installed and operated in its place unless authorized by an appropriate permit modification (except as allowed for temporary engine replacement in condition F6).
- (c) The permittee may expand the engine configuration beyond that described in paragraph (a) upon receipt of a construction or modification permit issued under Chapter 6, Section 2 of WAQSR that authorizes such change. The permittee must, however, submit an application to modify this operating permit within 12 months of commencement of operation for any engine not already included in this permit.

**STATUS: No issues were noted. (a) The engine configuration consists of nine (9) engines. (b) No engines have been removed from the facility, however, in CRPT025298 notification, the Caterpillar G3406TA VRU engine was removed from service November 16, 2017, by disconnecting and blinding the fuel, inlet suction and discharge lines. The engine will remain disconnected on location in the event the process conditions change and operating the VRU becomes practical. (c) No construction or modifications have occurred.**

(F2) FUGITIVE EQUIPMENT LEAK VOC EMISSIONS REQUIREMENT  
[WAQSR Ch 8, Sec 6; Ch 6, Sec 2 Permit P0021057]

The permittee shall utilize a Leak Detection and Repair (LDAR) program following the requirements of 40 CFR 60 Subpart KKK. Actual VOC emissions from fugitive equipment leaks shall be estimated as required in condition F14.

**STATUS: No issues were noted. Enterprise has implemented an LDAR program in accordance with 40 CFR 60 Subpart KKK and condition F14 of the permit. Semiannual reports have been submitted in a timely manner and are summarized in permit condition F23.**

Source-Specific Permit Conditions

(F3) VISIBLE EMISSIONS

[WAQSR Ch 3, Sec 2; Ch 3 Sec 6; Ch 6, Sec 2 Permits MD-11561, P0021057]

- (a) The combustion chamber, FLR002/FLA003 (CU-1), and the process flare, FLR001/FLA004 (PF-1), shall be operated and maintained to be smokeless, with no visible emissions except for periods not to exceed a total of five minutes during any two consecutive hours as determined by 40 CFR 60, Appendix A, Method 22. The process flare, FLR001/FLA004 (PF-1), must be equipped and operated with an automatic ignitor or a continuous burning pilot which must be maintained in good working order.
- (b) Visible emissions of any contaminant discharged into the atmosphere from any other single emission source shall not exhibit greater than 20 percent opacity except for one period or periods aggregating not more than six minutes in any one hour of not more than 40 percent opacity.

**STATUS: No issues were noted. (a) Method 22 observation records indicated the combustion device and process flare has had no visible emissions. The combustion**

device (FLR002) is equipped and operated with an automatic igniter and continuous burning pilot. The process flare (FLR001) is also equipped and operated with an automatic igniter and continuous burning pilot. The combustor has a thermocouple on each pilot. If the pilot reads less than 400 degrees this indicates the pilot is out and the automatic igniter will attempt to relight the pilot three times. (b) Visible emissions from any single source has not exhibited greater than 20 percent opacity for one period or periods aggregating not more than six minutes in any one hour of not more than 40 percent opacity or for greater than five minutes as required in permit conditions F7, F9, and F15. No visible emissions were observed from the combustion device or process flare during the facility inspection.

(F4) EMISSION LIMITATIONS

[WAQSR Ch 3, Sec 3; Ch 6, Sec 2 Permit MD-11561]

- (a) NO<sub>x</sub>, CO, VOC, and formaldehyde emissions shall not exceed the limits specified for each unit listed in Table I.
- (b) Compliance with the g/hp-hr limits is considered compliance with the lb/hr and TPY limits as long as each engine is operated at or below its site-rated capacity.
- (c) The Caterpillar G3612TALE and G3516BLE engines, ENG001-ENG006, ENG013, and ENG014 (E1-E6, G5, and G6) shall comply with applicable emission limitations from 40 CFR 63 Subpart ZZZZ. For 4-stroke lean burn engines greater than 250 hp that are considered new or reconstructed under Subpart ZZZZ, this shall include:
  - (A) CO emissions shall be reduced by 93 percent; OR
  - (B) Formaldehyde emissions shall be limited to 14 ppmvd at 15 percent oxygen.
- (d) NO<sub>x</sub> emissions from each heater, HET001 and HET002 (H1 and H2), shall not exceed 0.20 lb/MMBtu heat input.
- (e) The distance piece vent (a.k.a compressor cylinder rod packing vents), FUG003 (RPV), VOC emission rate for each Caterpillar G3612TALE and G3516BLE engine, ENG001-ENG006 (E1-E6), shall be limited to 30 SCFH and for the Caterpillar G3406TA VRU compressor engine, ENG010 (VRU), shall be limited to 10 SCFH.

Table I: NO<sub>x</sub>, CO, VOC, and Formaldehyde Emission Limits

Table I: NO <sub>x</sub> , CO, VOC, and Formaldehyde Emission Limits													
Source Description			NO <sub>x</sub>			CO			VOC			Formaldehyde	
Company ID	IMPACT ID	Model	g/hp-hr	lb/hr	TPY	g/hp-hr	lb/hr	TPY	g/hp-hr	lb/hr	TPY	lb/hr	TPY
E1-E6	ENG001-ENG006	Caterpillar G3612TALE	0.7	5.7	24.8	0.25	2.0	8.9	0.5	4.0	17.7	0.65	2.83
VRU	ENG010	Caterpillar G3406TA	1.0	0.5	2.4	2.0	1.1	4.7	1.0	0.5	2.4		
G5, G6	ENG013 ENG014	Caterpillar G3516BLE	1.0	4.0	17.4	0.26	1.0	4.5	0.67	2.7	11.6	0.28	1.22
CU-1	FLR002/ FLA003	Combustion Chamber		0.3	1.1		1.4	6.1		0.6	2.7		



**STATUS: No issues were noted. Emission test results can be viewed under permit condition F21 of this report. (a) NO<sub>x</sub>, CO, VOC, and formaldehyde emissions have not been exceed. (b) Emission testing results reported in g/hp-hr and lb/hr were in compliance. (c) The Caterpillar engines subject to 40 CFR 63 Subpart ZZZZ indicated the formaldehyde emissions were limited to 14 ppmvd at 15 percent oxygen. (d) NO<sub>x</sub> emissions from the heaters did not exceed the maximum heat input. (e) Quarterly piece vent monitoring report provided in the 2017 second semiannual monitoring and deviation report CRPT026773, indicated the calculated VOC emission rates were below the permitted limit of 30 SCFH. Distance piece vent VOC emission rates were determined every calendar quarter to verify compliance with the limits. The VRU is not in operation.**

**(F5) OPERATION AND MAINTENANCE REQUIREMENTS**

[WAQSR Ch 6, Sec 2 Permits MD-11561, P0021057]

- (a) The permittee shall operate and maintain the engines ENG001-ENG006, ENG010, ENG013, and ENG014 (E1-E6, VRU, G5, and G6), and associated air pollution control and monitoring equipment, according to manufacturer's instructions at all times, including startup, shutdown, and malfunction.
- (b) For each compressor engine, ENG001-ENG006 and ENG010 (E1-E6 and VRU), if the compressor does not start under the equalizing procedures for compressors, the starter shall be replaced.
- (c) Vapors from condensate flashing associated with the three horizontal storage tanks, TNK001-TNK003 (T1-T3), shall be controlled by the combustion chamber, FLR002/FLA003 (CU-1).
- (d) The permittee shall operate and maintain the combustion chamber, FLR002/FLA003 (CU-1), such that it remains effective as a viable emissions control device during all periods of active operation of any of the horizontal storage tanks TNK001-TNK003 (T1-T3).
- (e) The combustion chamber, FLR002/FLA003 (CU-1), shall have at least ninety-eight percent (98%) destruction efficiency for the reduction of the mass content of total VOC emissions.
- (f) Vapors from the condensate flash tank and stabilizer tower shall be routed to the VRU compressor. In the event the VRU compressor is unavailable or has insufficient capacity for the vapor being generated, the process flare, FLR001/FLA004 (PF-1), shall be used to combust the vapors from the flash tank and stabilizer tower. The process flare shall also be used to combust the vapors from safety relief devices tied into the process flare header.
- (g) The permittee shall operate and maintain the process flare, FLR001/FLA004 (PF-1), such that it remains effective as a viable emissions control device.
- (h) For the process flare, FLR001/FLA004 (PF-1), the permittee shall maintain documentation that the manufacturer designed VOC destruction efficiency is at least ninety-eight percent (98%).

**STATUS: No issues were noted. (a) Engine operation records indicate the engines, air pollution control, and monitoring equipment were operated maintained according to manufactures directions. (b) Records indicate no new starters were installed since the 2016 inspection. (c) Vapors from the three (3) horizontal condensate tanks are routed to the FLR002 for control. (d) FLR002 is operated and maintained during all periods of active operation of the horizontal storage tanks. (e) FLR002 was tested in 2017 and 2016 (STCK028442 and STCK026763). Both emission tests indicated destruction efficiency of 100 percent. Documentation that the manufacturer designed VOC destruction efficiency of FLR002 has been provided. (f) The VRU compressor is not in operation at this time. The emergency flare was re-designated as a process flare (FLR001) to combust vapors from the flash tank, stabilizer tower, and vapors from safety relief devices tied into the process flare header. (g) During this inspection both the combustion device and process flare appeared to be operating as designed. (h) Documentation that the manufacturer designed VOC destruction efficiency of FLR001 has been provided.**

**(F6) ENGINE REPLACEMENT**

[WAQSR Ch 6, Sec 3(h)(i)(I)]

- (a) Permanent replacement of an engine must be evaluated by the Division under WAQSR Ch 6, Sec 2 prior to such replacement to determine the appropriate permitting action and evaluate the need for additional requirements resulting from the permanent replacement.
- (b) Should an engine break down or require an overhaul, the permittee may bring on site and operate a temporary replacement engine until repairs are made. The temporary replacement unit shall be identical or similar to the unit replaced, with emission levels at or below those of the unit replaced. The permittee shall notify the Division in writing of such temporary replacement within five working days and include the following:
  - (i) The startup date of the temporary replacement unit; and
  - (ii) A statement regarding the applicability of any New Source Performance Standards (NSPS) in 40 CFR 60; any National Emission Standards for Hazardous Air Pollutants (NESHAPs) in 40 CFR 63; and Compliance Assurance Monitoring (CAM) in WAQSR Ch 7, Sec 3 for the temporary replacement unit.

**STATUS: No issues were noted. No engine replacements were documented to have occurred during this inspection period.**

**Testing and Monitoring Requirements**

**(F7) EMISSIONS TESTING**

[W.S. 35 11 110; WAQSR Ch 6 Sec 2 Permits MD-11561]

- (a) The Division reserves the right to require additional testing as provided under condition G1 of this permit. The Division shall specify the necessary test method(s)

and procedure(s) prior to the test, which may include the following test methods found at 40 CFR 60, Appendix A:

- (i) For visible emissions from the process flare and the combustion chamber, Method 22.
  - (ii) For visible emissions from other sources, Method 9.
  - (iii) For NO<sub>x</sub>, CO, and VOC emissions from any engine subject to the requirements of 40 CFR 60 Subpart JJJJ, follow the requirements of §60.4244.
  - (iv) For formaldehyde emissions:
    - (A) To demonstrate compliance with condition F4(a), testing shall follow EPA reference methods and a Division approved formaldehyde test method. Formaldehyde emissions in terms of lb/hr shall be calculated using the methodology in Sections 10.1.1.1 and 10.1.1.2 of the State of Wyoming's Portable Analyzer Protocol. The monitoring protocol is available from the Division upon request or can be downloaded at <http://deq.wyoming.gov/aqd/title-v-operating-permit-program/>.
    - (B) To demonstrate compliance with condition F4(c), testing shall be conducted in accordance with 40 CFR 63 Subpart ZZZZ.
  - (v) For NO<sub>x</sub> emissions from other sources, Methods 1-4 and 7 or 7E.
  - (vi) For CO emissions from other sources, Methods 1-4 and 10.
  - (vii) For VOC emissions from the distance piece vents, the procedure attached as Appendix A of this permit.
  - (viii) For VOC emissions from other sources, Methods 1-4 and 25A.
  - (ix) For alternative test methods, or methods used for other pollutants, the approval of the Administrator must be obtained prior to using the test method to measure emissions.
- (b) Unless otherwise specified, testing shall be conducted in accordance with WAQSR Ch 5, Sec 2(h).

**STATUS: No issues were noted. (a) Emissions testing included test methods listed in this condition. Annual performance tests were in accordance with EPA reference methods and Wyoming's Portable Analyzer Protocol. Results of the formaldehyde tests were reported in terms of ppmvd at 15% oxygen and lb/hr. The VRU is not in operation. A summary of emission testing can be viewed in permit condition F21 in this report. (b) No additional testing has been requested by the Division.**

(F8) VRU COMPRESSOR ENGINE PERFORMANCE TESTING  
[WAQSR Ch 6, Sec 2 Permit MD-11561]

The permittee shall measure VOC emissions from the Caterpillar G3406TA VRU compressor engine, ENG010 (VRU), within 90 days of startup. A test protocol shall be submitted to the Division for approval at least 30 days prior to testing.

- (a) Testing for VOC emissions shall consist of three 1-hour tests following the EPA Reference Methods specified in condition F7(a)(viii).

- (b) Engine horsepower, inlet temperature to the catalyst, pressure drop across the catalyst and other operating conditions shall be recorded during each test run and submitted with the test report.
- (c) Notification of the test date shall be provided to the Division at least 15 days prior to testing. Results of the tests shall be submitted to the Division within 45 days of completing the tests.

**STATUS: No issues were noted. The VRU compressor engine has not been started up. As discussed in CRPT025298 notification, the Caterpillar G3406TA VRU engine was removed from service November 16, 2017, by disconnecting and blinding the fuel, inlet suction, and discharge lines. The engine will remain disconnected on location in the event the process conditions change and operating the VRU becomes practical.**

(F9) VISIBLE EMISSIONS MONITORING  
[WAQSR Ch 6, Sec 3(h)(i)(C)(I)]

- (a) The permittee shall monitor and note the date, time, and duration when the combustion chamber, FLR002/FLA003 (CU-1), or the process flare, FLR001/FLA004 (PF-1), exhibit visible emissions for more than five minutes.
- (b) Periodic monitoring for visible emissions from the units referenced in conditions F1(a) and F4(d) shall consist of monitoring the type of fuel used to ensure that natural gas is the sole fuel source for these units.

**STATUS: No issues were noted. (a) FLR001 and FLR002 are operated and maintained to be smokeless having no visible emissions on record from April 15, 2016 through February 13, 2018. Method 22 observations were conducted as an extra measure and no visible emissions were documented on those reports. (b) Natural gas is documented as being utilized as the sole fuel source for these units. No visible emissions were present during the facility inspection.**

(F10) EMISSIONS TESTING AND MONITORING  
[WAQSR Ch 6, Sec 3(h)(i)(C)(I); Ch 6, Sec 2 Permit MD-11561]

- (a) The permittee shall conduct emissions testing for each engine as described below to assess compliance with the emission limits specified in conditions F4(a) through (c).
  - (i) For each engine, ENG001-ENG006, ENG010, ENG013, and ENG014 (E1-E6, VRU, G5, and G6), periodic testing for NOX, CO, and VOC emissions shall be conducted annually, within 12 months after completion of the last periodic test. For each unit, NOX, CO, and VOC shall be tested simultaneously.
    - (A) For engines subject to 40 CFR 60 Subpart JJJJ, testing shall follow 40 CFR 60 Subpart JJJJ §60.4244.
    - (B) For engines not subject to 40 CFR 60 Subpart JJJJ, testing shall be conducted in accordance with the EPA Reference Methods specified in condition F7 or the State of Wyoming's Portable Analyzer Protocol.

- (ii) To assess compliance with the limits in condition F4(a), formaldehyde emissions testing shall be conducted annually and simultaneously with the NOX, CO, and VOC testing required in paragraph (i) of this subcondition. Testing shall be conducted in accordance with the methods specified in condition F7(iv)(A).
  - (iii) Compliance with the CO or formaldehyde emission limit in condition F4(c), if applicable, shall be demonstrated as specified by the applicable requirements of 40 CFR 63 Subpart ZZZZ.
  - (iv) If any engine testing/monitoring shows operation outside the emission limits specified in conditions F4(a) or (c), the permittee shall:
    - (A) Notify the Division within 24-hours of completion of the test, and
    - (B) Repair and retest/monitor the affected engine to demonstrate the engine has been returned to operation within the limits in conditions F4(a) or (c), by no later than seven calendar days after completion of the testing/monitoring event that showed operation outside of emission limits.
    - (C) Compliance with this condition regarding repair and retesting/monitoring shall not be deemed to limit the authority of the Division to cite the owner or operator for an exceedance of the emission limits for any testing which shows noncompliance.
- (iv) The State of Wyoming Portable Analyzer Monitoring Protocol can be downloaded at <http://deq.wyoming.gov/aqd/title-v-operating-permit-program/> or is available from the Division upon request.
- (b) The permittee shall measure NOX, CO, and VOC emissions from the combustion chamber, FLR002/FLA003 (CU-1), at least once every calendar year to assess compliance with the emission limits in condition F4(a) and the destruction efficiency requirement in condition F5(e). Periodic tests are required within 12 months after completion of the last periodic test.
  - (i) NOX and CO emissions testing shall consist of three 1-hour tests following the EPA Reference Methods specified in condition F7 or other Division-approved Methods.
  - (ii) VOC emissions testing shall consist of three 1-hour simultaneous tests at the inlet and outlet of the combustion chamber following the EPA Reference Methods specified in condition F7. During VOC emissions testing, the permittee shall also measure and evaluate the CAM indicators as specified in condition F13(c).
- (c) The permittee shall notify the Division prior to the testing required in subconditions (a) and (b) of this condition, as specified in condition F20(c). Test results shall be reported in the form of the standard and be submitted in accordance with condition F21.
- (d) The distance piece vent (a.k.a compressor cylinder rod packing vents), FUG003 (RPV), VOC emission rates for each compressor shall be determined every calendar quarter to verify compliance with the limits in condition F4(e).

- (i) Testing to determine the total vent flow rate shall follow the procedure attached as Appendix A.
  - (ii) The total vent flow rate shall be multiplied by the total VOC content of the gas (volume %), as determined by the most recent gas analysis (which shall be determined at least annually). The resulting VOC emission rate, in standard cubic feet per hour, shall be compared to the limits in condition F4(e).
  - (iii) Revision to this procedure must first be authorized by a WAQSR Ch 6, Sec 2 permitting action and then a Ch 6, Sec 3 operating permit amendment issued prior to implementing a revised procedure.
- (e) The permittee shall monitor all compressor startup events to determine whether the equalizing procedures were followed.

**STATUS: No issues were noted. (a) ENG001-ENG006, ENG013 and ENG014 were tested every twelve (12) calendar months to verify compliance with the NOx, CO, VOC and formaldehyde limits. Compliance with the formaldehyde emission limits were demonstrated as specified by the applicable requirements of 40 CFR 63 Subpart ZZZZ. No emissions were observed to be outside the emission limits specified in permit condition F4. (b) FLR002 was tested every twelve (12) calendar months to verify compliance with NOx, CO, and VOC limits. (c) Notification of scheduled test dates were provided to the Division within fifteen (15) days prior to testing included CRPT026496 protocol and notification for the engines in 2018, and CRPT018360 notification and protocol for the engines in 2017. (d) The distance piece vent VOC emission rates for each compressor were determined every calendar quarter to verify compliance. Records indicate emission rates were below the permitted limit of 30 SCFH. (e) Compressor startup events were monitored to determine whether the equalizing procedures were followed.**

(F11) PROCESS FLARE MONITORING

[WAQSR Ch 6, Sec 3(h)(i)(C)(I); Ch 6, Sec 2 P0021057]

- (a) The permittee shall continuously monitor for the presence of a pilot flame on the process flare, FLR001/FLA004 (PF-1), using a thermocouple and continuous recording device or any other equivalent device to detect the presence of a flame.
- (b) The permittee shall monitor for any period when the VRU compressor is unavailable or has insufficient capacity for the vapors from the condensate flash tank and stabilizer tower and determine whether those vapors are instead routed to the process flare, FLR001/FLA004 (PF-1).

**STATUS: No issues were noted. (a) FLR001 is continuously monitored to detect the presence of a flame. (b) FLR001 is used in lieu of the VRU compressor. The VRU compressor engine has not been used due to insufficient vapor feed capacity.**

(F12) ENGINE CATALYST MONITORING

[WAQSR Ch 6, Sec 2 Permit MD-11561]

The permittee shall follow the monitoring requirements as follows for each engine equipped with an oxidation catalyst or NSCR catalyst, ENG001-ENG006, ENG010, ENG013, and ENG014 (E1-E6, VRU, G5, and G6):

- (a) Operate and maintain a thermocouple to measure the temperature at the inlet of the catalyst. The inlet temperature shall be monitored and recorded at least monthly. If the temperature is outside the range listed below, corrective action shall be taken.
  - (i) NSCR Catalyst: 750°F to 1250°F
  - (ii) Oxidation Catalyst: 450°F to 1350°F
- (b) Operate and maintain a device to measure the pressure drop across the catalyst. The pressure drop across the catalyst shall be monitored and recorded at least monthly. If the pressure changes by more than two inches of water, at plus or minus ten percent of 100 percent load, from the reference pressure drop as determined below, corrective action shall be taken.
  - (i) Reference pressure drop for each engine shall be established during the initial performance test.
  - (ii) When a catalyst is replaced, the reference pressure drop shall be re-established for that engine during the first test conducted in compliance with condition F10(a) which occurs after the catalyst replacement.
- (c) Compliance with 40 CFR 63 Subpart ZZZZ §63.6605 and §63.6640 may be used in lieu of the monitoring requirements in subconditions (a) and (b) of this condition.

**STATUS: No issues were noted. (a) Monitoring and maintenance records were observed during the office review of records. Each affected RICE is equipped with a Continuous Parameter Monitoring System (CPMS) consisting of temperature sensor upstream of the catalyst bed linked to an electronic data recording system. (b) Pressure drop is measured and documented monthly for the catalysts and in accordance with permit condition F10(a). (c) Compliance with 40 CFR 63 Subpart ZZZZ §63.6605 and §63.6640 was used in lieu of the monitoring requirements in sub conditions (a) and (b) of this condition.**

(F13) COMPLIANCE ASSURANCE MONITORING (CAM)

[WAQSR Ch 7, Sec 3(c)(ii); Ch 6, Sec 3(h)(i)(C)(I); Ch 6, Sec 2 Permit MD-11561]

For VOC emissions from the combustion chamber, FLR002/FLA003(CU-1), the permittee shall adhere to the compliance assurance monitoring (CAM) plan, attached as Appendix C of this permit, and shall conduct monitoring during active operation of any horizontal storage tank, TNK001-TNK003 (T1-T3), including the following:

- (a) Using a thermocouple and continuous recording device or any other equivalent device to detect the presence of a pilot flame in the combustion chamber, the permittee shall monitor for times of active operations of any tank during which the combustion chamber is inoperable.
  - (i) The permittee shall monitor the temperature of the combustor pilot at least daily.

- (ii) An excursion, which is considered pilot flame temperature at or below the ambient temperature, shall trigger immediate inspection and, if appropriate, corrective action.
- (b) The permittee shall maintain and operate a pressure gauge, located at the inlet of the waste gas flow to the combustion chamber.
  - (i) The permittee shall monitor and record the inlet waste gas pressure, at least once daily.
  - (ii) An excursion, which is considered operation outside the pressure range established in the approved CAM plan, shall trigger immediate inspection and, if appropriate, corrective action.
- (c) The permittee shall measure VOC emissions from the combustion chamber as specified in the CAM plan and in condition F10(b), to further define the relationship between emissions and the CAM indicators. During each test, the permittee shall also measure the CAM indicators. Following each test, the permittee shall evaluate the data from the test, together with data from previous testing, to determine if the indicator ranges in the CAM plan should be revised.
- (d) The permittee shall follow all other applicable requirements under conditions CAM-1 through CAM-4 of this permit.

**STATUS: No issues were noted. (a) Facility electronic records indicated FLR002 was continuously monitored for temperature of the pilot and inlet gas waste pressure. (b) The inlet waste gas pressure was continuously monitored and did not triggered an excursion. (c) VOC emissions from the combustion chamber were measured annually. (d) VOC emissions were measured to be below 0.6 lb/hr indicating no excursion in the CAM plan. Records indicate inlet waste gas pressure has not operated outside the pressure range during this inspection period. No excursion has been activated during this inspection period.**

(F14) FUGITIVE EQUIPMENT LEAK VOC EMISSIONS MONITORING

[WAQSR Ch 8, Sec 6; Ch 6, Sec 3(h)(i)(C)(I); Ch 6, Sec 2 Permit P0021057]

The permittee shall follow the requirements of 40 CFR 60 Subpart KKK for the LDAR program required by condition F2. Fugitive VOC emissions shall be calculated annually in accordance with the methodology described in Appendix B of this permit. Revisions to the methodology must first be approved by the Division and a WAQSR Ch 6, Sec 3 operating permit amendment issued prior to implementing a revised methodology.

**STATUS: No issues were noted. Enterprise submits fugitive equipment leak VOC emissions monitoring reports in a thorough and timely manner. Reports required by permit condition F2 and in accordance with 40 CFR 60 Subpart KKK semiannual reporting requirement and fugitive VOC emissions reports required by this condition are summarized in permit condition F23.**



## Recordkeeping Requirements

### (F15) TESTING AND MONITORING RECORDS

[WAQSR Ch 6, Sec 3(h)(i)(C)(II); Ch 6, Sec 2 Permits MD-11561, P0021057]

- (a) For any testing or monitoring performed under conditions F7, F8, and F10(a) – (d), other than Method 9 or Method 22 observations, the permittee shall record, as applicable, the following:
  - (i) The date, place, and time of sampling, measurements, or observations;
  - (ii) The company or entity that performed the analyses or observations;
  - (iii) The analytical techniques or methods used;
  - (iv) The results of such analyses or observations; and
  - (v) The operating conditions as they existed at the time of the testing, monitoring, or observation including, for engines, the horsepower, inlet temperature to the catalyst, and pressure drop across the catalyst.
- (b) For any Method 9 observations required by the Division under condition F7, the permittee shall keep field records in accordance with Section 2.2 of Method 9.
- (c) For any Method 22 observations required by the Division under condition F7, the permittee shall keep field records in accordance with Sections 11.2 and 11.5 of Method 22, and record the operating conditions of the observed unit as they existed at the time of observation.
- (d) For visible emissions monitoring under condition F9(a), the permittee shall record the date, time and duration when the combustion chamber, FLR002/FLA003 (CU-1), and/or the process flare, FLR001/FLA004 (PF-1), exhibit visible emissions for more than five minutes.
- (e) For the engine catalyst monitoring required under condition F12, the permittee shall record the catalyst inlet temperature, pressure drop across the catalyst and the reference pressure drop at the time of the pressure drop monitoring, and any maintenance and/or corrective action triggered. The permittee shall also record the dates of catalyst replacement for each engine.
- (f) For the distance piece vent monitoring required under condition F10(d), the permittee shall also keep records of packing replacements and any deviations from condition F10(d) and the Distance Piece Vent Testing Procedure attached as Appendix A of this permit. Records shall include all test documentation, gas analysis, and calculations used to show compliance with the limit in condition F4(e).
- (g) The permittee shall retain these records on-site at the facility, for a period of at least five years from the date the records are generated.

**STATUS: No issues were noted. (a) Testing and monitoring records were retained at the facility for review and included the items in (a) of this condition. (b) Method 9 monitoring for visible emissions from other sources were not required. No visible emissions were reported during the inspection period. (c) Method 22 observations for visible emissions from FLR001 and FLR002 were conducted monthly from 2016 through 2017. (d) No visible emissions were observed. (e) Engine catalyst**

maintenance records included catalyst inlet temperature and pressure drop. Computer records indicated catalysts were replaced on generator engine ENG014 and compressor engine ENG003 in 2018. (f) Quarterly piece vent monitoring report provided in the 2017-second semi-annual monitoring and deviation report CRPT026773, indicated the calculated VOC emission rates were below the permitted limit of 30 SCFH. The distance piece vent VOC emission rates were determined every calendar quarter to verify compliance with the limits. Distance piece vent monitoring records were provided. (g) These records are maintained at the facility for a period of at least five years from the date the records were generated.

(F16) OPERATION AND PROCESS FLARE MONITORING RECORDS

[WAQSR Ch 6, Sec 3(h)(i)(C)(II); Ch 6, Sec 2 Permits MD-11561, P0021057 and Waiver wv-13246]

- (a) The permittee shall maintain records of all compressor start up events (starter gas); including whether or not the equalizing procedures were followed and any starter replacements required by condition F5(b).
- (b) The permittee shall maintain records noting the date and duration of time when the VRU compressor is unavailable or has insufficient capacity for the vapors from the condensate flash tank and stabilizer tower, and they are routed to the process flare, FLR001/FLA004 (PF-1).
- (c) For the process flare, FLR001/FLA004 (PF-1), the permittee shall maintain records indicating the presence of a pilot flame, including the date, time and duration of events when the pilot flame is not present during active operation of the condensate flash tank and stabilizer tower and during releases from safety relief devices tied to the process flare header. The records shall contain a description of the reason(s) for absence of the pilot flame and steps taken to return the pilot flame to proper operation.
- (d) The permittee shall maintain documentation that the manufacturer designed VOC destruction efficiency for the process flare, FLR001/FLA004 (PF-1), is at least ninety-eight percent (98%). Documentation shall be kept for the life of the flare and made available upon request.
- (e) The permittee shall retain records for hours of operation for the two John Deere diesel generator engines authorized by temporary waiver wv-13246 through the end of 2017.
- (f) The permittee shall retain records required by subconditions (a)-(c) and (e) of this condition on-site at the facility, for a period of at least five years from the date the records are generated.

**STATUS: No issues were noted. Oracle is the maintenance program used at this facility. (a) No starter replacements occurred since the last inspection date. (b) The VRU compressor is not in operation. Vapors from the condensate flash tank and stabilizer tower are routed to FLR001. (c) FLR001 continuous recording device records detected the presence of a flame including date and duration of events when the pilot flame was not present. (d) Documentation that the manufacturer designed VOC destruction efficiency was provided. (e) Division correspondence report**

**COR044010 provided notification of shutdown of the two John Deere diesel generator engines in December 2012. (f) These records are maintained at the facility for a period of at least five years from the date the records were generated.**

(F17) MAINTENANCE RECORDS

[WAQSR Ch 6, Sec 3(h)(i)(C)(II); Ch 6, Sec 2 Permit MD-11561]

- (a) The permittee shall maintain records of maintenance activities for engines, required by condition F5(a), which shall include:
  - (i) The maintenance activity performed;
  - (ii) The date and place the activity was performed;
  - (iii) The company and individual(s) that performed the activity;
  - (iv) The purpose of the activity;
  - (v) An explanation for any deviation from the manufacturer's instructions; and
  - (vi) Any corrective actions taken.
- (b) The permittee shall retain these records on-site at the facility, for a period of at least five years from the date the records are generated.

**STATUS: No issues were noted. (a) Maintenance activity records were observed to be maintained at the facility and include the required documentation. Maintenance records and scheduling of maintenance appeared to be in accordance with manufacturer's recommendations and permit condition F5 of this permit. (b) These records have been maintained at the facility for a period of at least five years from the date the records were generated.**

(F18) CAM RECORDS

[WAQSR Ch 7, Sec 3(i)(ii); Ch 6, Sec 3(h)(i)(C)(II); Ch 6, Sec 2 Permit MD-11561]

For the CAM monitoring required under condition F13 the permittee shall:

- (a) Maintain records noting the date and duration of time during active operation of any horizontal storage tank, TNK001-TNK003 (T1-T3), when the pilot flame is not present and/or the combustion chamber is inoperable. The records shall contain a description of the reason(s) for absence of the pilot flame or otherwise inoperable condition and steps taken to return the combustion chamber to proper operation.
- (b) Record the pilot temperature and inlet pressure as measured during testing required by condition F10(b) and the evaluation of the indicator ranges.
- (c) Record the date, time, and duration of any excursions as well as the CAM indicator value(s) during each excursion.
- (d) Maintain records of monitor performance data, corrective actions taken, and any written quality improvement plan required pursuant to WAQSR Ch 7, Sec 3(h), any activities undertaken to implement a Quality Improvement Plan (QIP), any other records specified in the CAM plan in Attachment C of this permit, and other supporting information required to be maintained under WAQSR Ch 7, Sec 3.
- (e) The permittee shall retain these records on-site at the facility, for a period of at least five years from the date the records are generated.

**STATUS: No issues were noted. (a) Semiannual subpart Kb reports have been provided and are summarized in Subpart Kb Requirements in this inspection report (b) CAM-2 through CAM-4 were met and in accordance with Enterprise Operating Plan and VOC CAM Plan. Pilot temperature and inlet pressures were recorded. (c) Testing and monitoring requirements under permit condition F13 indicates no excursions or downtime incidents occurred during the reporting period. (d) As specified in the CAM plan a QIP was not required. (e) These records are maintained at the facility for a period of at least five years from the date the records were generated.**

**(F19) FUGITIVE EQUIPMENT LEAK VOC EMISSIONS RECORDS**

**[WAQSR Ch 8, Sec 6; Ch 6, Sec 3(h)(i)(C)(II); Ch 6, Sec 2 Permit P0021057]**

- (a) The permittee shall keep records of the LDAR program required by condition F2 that shall include:
  - (i) The dates and results of all LDAR inspections performed pursuant to the LDAR protocol;
  - (ii) The date(s) and type of any corrective actions taken, if appropriate, as a result of the required inspections; and
  - (iii) All other records in accordance with 40 CFR 60 Subpart KKK.
- (b) The permittee shall keep records of the monitoring and calculations required by condition F14. The records shall include the following:
  - (i) The calculated actual VOC emissions from equipment fugitive leaks for the facility in TPY;
  - (ii) A comparison of the calculated actual fugitive VOC emissions to the VOC emissions represented in the WAQSR Chapter 6, Section 2 Permit P0021057 application;
  - (iii) Documentation of the actual fugitive VOC emission calculations for the facility, including the representative gas analysis used, weight percent TOC and VOC concentrations, and component type, service, and counts;
  - (iv) The emission factors and EPA protocol approach(es) that were used; and
  - (v) The adjustments for VOC content and LDAR control effectiveness.
- (c) The permittee shall retain these records on-site at the facility for a period of at least five years from the date the records are generated.

**STATUS: No issues were noted. An LDAR program is being utilized in accordance with permit condition F2. (a) Enterprise submits thorough and timely reports in compliance with Subpart KKK Section 60.636 reporting requirements. (b) In compliance with permit condition F14, the operator has kept records of the monitoring and calculations. (c) These records are maintained at the facility for a period of at least five years from the date the records were generated.**

## Reporting Requirements

### (F20) NOTIFICATION REQUIREMENTS

[WAQSR Ch 6, Sec 3(h)(i)(C)(III); Ch 6, Sec 2 Permits MD-11561]

- (a) Written notification of the actual date of start-up for Caterpillar G3406TA VRU compressor engine, ENG010 (VRU), is required within 15 days of start-up in accordance with WAQSR Ch 6, Sec 2(i)(ii). Such notification shall be submitted on a complete Engine Installation/Removal form. The form can be downloaded from the Air Quality Division website <http://deq.wyoming.gov/aqd/new-source-review/> or obtained from the Air Quality Division. With the start-up notification for this engine the permittee shall address the applicability of 40 CFR 60 Subpart JJJJ.
- (b) Upon shutdown and removal of an engine from the facility, written notification is required within 15 days of removal. Such notification shall be submitted on a complete Engine Installation/Removal form. The form can be downloaded from the Air Quality website <http://deq.wyoming.gov/aqd/new-source-review/> or obtained from the Air Quality Division.
- (c) For testing required by conditions F8 and F10(a) and (b), the permittee shall notify the Division as follows:
  - (i) For engines subject to the requirements of 40 CFR 60 Subpart JJJJ, the permittee shall provide test notification as specified in §60.8 of 40 CFR 60.
  - (ii) For engines subject to the requirements of 40 CFR 63 Subpart ZZZZ, the permittee shall provide test notifications as specified in §63.7(b) and (c) and §63.9(b).
  - (iii) For other engines, notification of the test date shall be provided at least 15 days prior to testing.
- (d) Notifications may be provided electronically through the Division's IMPACT system (<https://airimpact.wyo.gov>), or in writing to the DEQ Air Quality Contact listed on page 3 of this permit.

**STATUS: No issues were noted. (a) The VRU has not been started. (b) Written notification of the shutdown of the VRU was submitted in CRPT025298, the Caterpillar G3406TA VRU engine was removed from service November 16, 2017, by disconnecting and blinding the fuel, inlet suction, and discharge lines. The operator indicates the VRU engine will remain disconnected on location in the event process conditions change and operating the VRU becomes practical. (c) Notifications were provided. (d) Notifications are not provided electronically through the Division's IMPACT system.**

### (F21) TEST REPORTS

[WAQSR Ch 6, Sec 3(h)(i)(C)(III); Ch 6, Sec 2 Permit MD-11561]

- (a) The permittee shall report the results of emissions tests performed under conditions F8 and F10(a)-(b), and any additional testing required by the Division under condition F7, within 45 days of completing the tests.

- (i) However, if testing for any engine shows operation out of compliance, the Division must be notified within 24 hours as indicated under condition F10(a).
- (ii) The reports shall also include the evaluation of CAM indicator ranges as required by condition F10(b). If the evaluation indicates the CAM range(s) need(s) to be revised, the permittee shall submit a revised CAM plan to the Division, along with a request to administratively amend this permit, within 60 days of completing the test.
- (b) The reports shall include the information specified under condition F15(a), reference this permit condition (F21), and be submitted to the Division in accordance with condition G4.

**STATUS: No issues were noted. (a) Results of emissions tests performed under permit condition F10 is documented in the table below. No emission limits were exceeded. Emissions from FLR002 were tested within 12 months after completion of the last periodic test. All emission tests were submitted within 45 days of completing the tests. CAM indicator ranges indicate the CAM does not need to be revised. (b) Records for testing include the information specified under permit condition F15(a).**

F21(a): Tested NO <sub>x</sub> , CO, VOC, and Formaldehyde Emissions													
Source Description			NO <sub>x</sub>			CO			VOC			HCOH	
Stack Test ID	IMPACT ID	Stack Test Date	g/hp-hr	lb/hr	TPY	g/hp-hr	lb/hr	TPY	g/hp-hr	lb/hr	TPY	lb/hr	TPY
STCK029840	ENG001	3/27/2018	0.4	3.2		0.06	0.5		0.2	1.7		0.25	
	ENG002	3/27/2018	0.4	2.9		0.07	0.6		0.2	1.7		0.25	
	ENG003	3/28/2018	0.3	2.4		0.02	0.2		0.2	1.7		0.16	
	ENG004	3/27/2018	0.3	2.7		0.04	0.3		0.2	1.9		0.25	
	ENG005	3/29/2018	0.4	2.7		0.05	0.4		0.2	1.4		0.33	
	ENG006	3/27/2018	0.3	2.5		0.04	0.3		0.2	1.8		0.18	
	ENG013	3/28/2018	0.9	2.7		0.02	0.1		0.06	0.2		0.03	
	ENG014	3/28/2018	0.8	2.5		0.05	0.2		0.08	0.2		0.08	
STCK028442	FLR002	6/14/2017		0.0	0.0		0.0	0.0		0.0	0.0		
STCK028029	ENG001	3/27/2017	0.4	3.3		0.09	0.8		0.2	1.9		0.28	
	ENG002	3/27/2017	0.4	3.5		0.08	0.6		0.2	1.6		0.24	
	ENG003	3/28/2017	0.4	3.5		0.05	0.4		0.2	1.4		0.25	
	ENG004	3/27/2017	0.4	3.7		0.04	0.4		0.2	1.5		0.25	
	ENG005	3/29/2017	0.4	3.3		0.05	0.4		0.2	1.5		0.25	
	ENG006	3/27/2017	0.4	3.6		0.05	0.4		0.2	1.5		0.23	
	ENG013	3/28/2017	0.7	2.1		0.08	0.3		0.11	0.3		0.19	
	ENG014	3/28/2017	0.8	2.4		0.01	0.0		0.11	0.3		0.02	
STCK026763	FLR002	6/22/2016		0.0	0.0		0.0	0.0		0.0	0.0		

(F22) MONITORING REPORTS

[WAQSR Ch 6, Sec 3(h)(i)(C)(III); Ch 6, Sec 2 Permits MD-11561, P0021057]

- (a) The following shall be reported to the Division for each semiannual reporting period from January 1 through June 30, and from July 1 through December 31, within 31 days of the end of each period (by July 31 and January 31, respectively, each year):
- (i) Summary results of the combustion chamber, FLR002/FLA003 (CU1), and the process flare, FLR001/FLA004 (PF-1), visible emissions monitoring required under condition F9(a). Only monitoring during which excess visible emissions are observed from the combustion chamber or process flare, and any corrective actions taken, shall be included in the report. If no excess visible emissions are observed during the reporting period, this shall be stated in the report.
  - (ii) Documentation that the Caterpillar engines, ENG001-ENG006, ENG010, ENG013 and ENG014 (E1-E6, VRU, G5 and G6), and the heaters, HET001 and HET002 (H1 and H2), are firing natural gas as specified in condition F9(a).
  - (iii) Summary results of the process flare monitoring required under condition F11(a). If there were outages of the pilot flame during operations of the condensate flash tank and stabilizer tower, or during a release from safety relief devices tied into the process flare, the permittee shall report the date(s) and duration of time during active operation when the pilot flame was not present, a description of the reason(s) for absence of the pilot flame, and steps taken to return the pilot flame to proper operation. If no pilot flame outages occurred during the reporting period, this shall be stated in the report.
  - (iv) Summary of dates and duration of times when the VRU compressor was unavailable or had insufficient capacity for the vapors being generated from the condensate flash tank and stabilizer tower and those vapors were routed to the process flare, FLR001/FLA004 (PF-1). If the VRU compressor was available and had sufficient capacity for the vapor being generated at all times during the reporting period, this shall be stated in the report.
  - (v) Summary results of the quarterly monitoring required by condition F10(d) for the distance piece vent VOC emission rate and packing replacements for each compressor engine, including for the most recent two quarters the total flow rate in SCFH, the volumetric % VOC content, and the VOC emission rate in SCFH.
  - (vi) The number, duration, and cause of any excursions from the temperature and pressure drop ranges specified in condition F12 for each of the catalytically controlled engines. The report shall include a summary of any maintenance and/or corrective actions taken as a result of excursions; if no excursions occurred during the reporting period, this shall be stated in the

report. If an engine did not operate for an entire calendar month, this shall be stated in the report.

- (vii) Results of the CAM required under condition F13. The results shall include the following, as applicable:
  - (A) Information on the number, duration, and cause of excursions, as applicable, and the corrective actions taken.
  - (B) Summary information on the number, duration, and cause for monitor downtime incidents.
  - (C) A description of the action taken to implement a QIP (if required) during the reporting period as specified in Chapter 7, Section 3 (h). Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has reduced the likelihood of similar excursions.
  - (D) If no excursions or downtime incidents occurred during the reporting period, this shall be stated in the report.
- (b) All instances of deviations from the conditions of this permit must be clearly identified in each report.
- (c) The reports shall reference this permit condition (F22), and be submitted to the Division in accordance with condition G4.

**STATUS: No issues were noted. Semiannual reports were submitted within 31 days of the end of each reporting period as shown in the table below. Semiannual monitoring report CRPT026773 for the reporting period July 1 through December 31, 2017, reported under Title V permit 3-0-211, issued December 9, 2011 and referenced permit conditions F17, F18, and F19. The report also referenced permit condition F22 under Title V permit P0021864, issued September 11, 2017. FLR001 and FLR002 were monitored for visible emissions for greater than five minutes as required in permit condition F9(a). Engines, generators, and heaters were reported to be fired by natural gas. Process flare pilot was present at all times. The VRU was not operated. Quarterly distance piece vent monitoring required by F10(d) indicated the quarterly measured VOC emission rates were below 30 SCFH. Results of the CAM were reported. Notifications are not provided electronically through the Division's IMPACT system.**

**Reports CRPT022860, CRPT018684, CRPT014418 were provided as described under permit conditions F17, F18, and F19 of Title V permit 3-0-211.**

<b>SEMIANNUAL MONITORING (F22)</b>			
<b>Report ID</b>	<b>Received Date</b>	<b>Reporting Period</b>	<b>Report Title</b>
CRPT026773	1/29/2018	7/1 – 12/31/2017	Semi-Annual Monitoring and Deviation Report
CRPT022860	7/31/2017	1/1 – 6/30/2017	Semi-Annual Monitoring and Deviation Report
CRPT018684	1/30/2017	7/1 – 12/31/2016	Semi-Annual Monitoring and Deviation Report
CRPT014418	8/1/2016	1/1 – 6/30/2016	Semi-Annual Monitoring and Deviation Report



(F23) FUGITIVE EQUIPMENT LEAK VOC EMISSIONS REPORTS

[WAQSR Ch 6, Sec 3(h)(i)(C)(II); Ch 6, Sec 2 Permit P0021057]

- (a) By March 1 of each calendar year, the permittee shall submit a report on the facility's calculated actual VOC emissions from fugitive equipment leaks for the previous calendar year. The report shall include:
- (i) Total actual fugitive VOC emissions in TPY, calculated as specified in condition F14;
  - (ii) A summary of the comparison of the calculated actual fugitive VOC emissions to the VOC emissions represented in the WAQSR Chapter 6, Section 2 Permit P0021057 application;
  - (iii) Documentation of the actual fugitive VOC emission calculations for the facility, including the component type, service, and counts;
  - (iv) The emission factors and EPA protocol approach(es) that were used; and
  - (v) The adjustments for VOC content and LDAR control effectiveness.
- (b) The permittee shall comply with the reporting requirements in 40 CFR 60 Subpart KKK for the LDAR program required by condition F2.
- (c) All instances of deviations from the conditions of this permit must be clearly identified in each report.
- (d) The reports shall reference this permit condition (F23), and be submitted to the Division in accordance with condition G4.

**STATUS: One (1) issue was noted. CRPT013162 was not submitted by March 1 of the calendar year. (a) Annual fugitive equipment leak VOC emissions reports were submitted annually. CRPT027064 was submitted in a timely fashion and references permit condition F23 in the report. The report indicated actual total fugitive VOC emissions were 15.9 tpy with the permitted fugitive VOC emissions of 16.2. CRPT020153 was submitted in time and references NSR permit MD-11561 condition 32. The report indicated actual total fugitive VOC emissions were 13.3 tpy with the permitted fugitive VOC emissions of 16.2. CRPT013162 was submitted 92 days after March 1 and references NSR permit MD-11561 condition 32. The report indicates actual total fugitive VOC emissions were 15.35 tpy with the permitted fugitive VOC emissions of 16.22.**

ANNUAL FUGITIVE EQUIPMENT LEAK VOC EMISSIONS (F23(a))			
Report ID	Received Date	Reporting Period	Report Title
CRPT027064	2/5/2018	2017	Annual Equipment Leaks Report
CRPT020153	3/17/2017	2016	Annual Equipment Leaks Report
CRPT013162	5/31/2016	2015	Annual Equipment Leaks Report

(b) semiannual reporting requirements in 40 CFR 60 Subpart KKK for the LDAR program were submitted following each semiannual reporting period. The reports do not reference permit condition F23.

SEMIANNUAL 40 CFR 60 SUBPART KKK FOR LDAR PROGRAM (F23(b))			
Report ID	Received Date	Reporting Period	Report Title
CRPT026854	1/29/2018	7/1 – 12/31/2017	40 CFR 60 Subpart KKK Semiannual Monitoring Report
CRPT022885	7/31/2017	1/1 – 6/30/2017	40 CFR 60 Subpart KKK Semiannual Monitoring Report
CRPT018142	1/24/2017	7/1 – 12/31/2016	40 CFR 60 Subpart KKK Semiannual Monitoring Report
CRPT014424	8/1/2016	1/1 – 6/30/2016	40 CFR 60 Subpart KKK Semiannual Monitoring Report

(F24) GREENHOUSE GAS REPORTS

[W.S. 35-11-110]

The permittee shall submit to the Division a summary of any report(s) required to be submitted to the EPA under 40 CFR 98.

- (a) The reports shall be submitted to the Division within 60 days of submission to EPA, in a format as specified by the Division.
- (b) The reports shall be submitted in accordance with condition G4(a) of this permit, to the attention of the Division's Emission Inventory Program.

**STATUS: No issues were noted. Falcon was not required to submit a Greenhouse Gas report to the Division for the year 2016 since this condition was not in the Title V permit. Greenhouse Gas report for the year 2017 had not been submitted at the time of this inspection.**

(F25) REPORTING EXCESS EMISSIONS & DEVIATIONS FROM PERMIT REQUIREMENTS

[WAQSR Ch 6, Sec 3(h)(i)(C)(III)]

- (a) General reporting requirements are described under the General Conditions of this permit. The Division reserves the right to require reports as provided under condition G1 of this permit.
- (b) Emissions which exceed the limits specified in this permit and which are not reported under a different condition of this permit shall be reported annually with the emission inventory unless specifically superseded by condition G17, condition G19, or other condition(s) of this permit. The probable cause of such exceedance, the duration of the exceedance, the magnitude of the exceedance, and any corrective actions or preventative measures taken shall be included in this annual report. For sources and pollutants which are not continuously monitored, if at any time emissions exceed the limits specified in this permit by 100 percent, or if a single episode of emission limit exceedance spans a period of 24 hours or more, such exceedance shall be reported to the Division within one working day of the exceedance. (Excess emissions due to an emergency shall be reported as specified in condition G17. Excess emissions due to unavoidable equipment malfunction shall be reported as specified in condition G19.)

- (c) Any other deviation from the conditions of this permit shall be reported to the Division in writing or electronically through the Division's IMPACT system (<https://airimpact.wyo.gov>), within 30 days of the deviation or discovery of the deviation.

**STATUS: No issues were noted. Excess emissions due to an unavoidable equipment malfunctions were reported as specified in condition G19. No deviations from the conditions of this permit were reported to the Division.**

WAQSR CHAPTER 5, SECTION 2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) AND 40 CFR 60 SUBPART Kb REQUIREMENTS FOR VOLATILE ORGANIC LIQUID STORAGE VESSELS (INCLUDING PETROLEUM LIQUID STORAGE VESSELS) FOR WHICH CONSTRUCTION, RECONSTRUCTION, OR MODIFICATION COMMENCED AFTER JULY 23, 1984

#### SUBPART Kb REQUIREMENTS

[40 CFR 60 Subparts A and Kb; WAQSR Ch 5, Sec 2 and Ch 6, Sec 2 Permit MD-11561]

The permittee shall meet all applicable requirements of 40 CFR 60 Subparts A and Kb and WAQSR Ch 5, Sec 2, as they apply to each storage vessel as defined under §60.110b, including the 1,000 bbl horizontal storage tanks, TNK001-TNK003 (T1-T3), and associated closed vent systems and control devices (FLR002/FLA003 [CU-1]).

**STATUS: No issues were noted. Combustion Chamber pilot outages summarized in CRPT026805 during the reporting period were as follows: November 11, 2017, a station ESD on faulty gas detector caused 3.2 hours of outage. November 16, 2017, the VRU LOTO decommissioning caused 4.7 hours of outage. November 29, 2017, a station ESD after a generator failure to swap caused 1.8 hours of outage. Pilot outages summarized in CRPT022863 during the reporting period were as follows: January 6, 2017, low ambient temperature reading indicated 7.7 hours of outage. April 14, 2017, a planned facility-wide ESD/Lit pilot caused 6.1 hours of outage. Pilot outages summarized in CRPT018372 during the reporting period were as follows: July 31, 2016 maintenance caused 1.51 hours of outage. September 1, 2016 high wind indicated a pilot outage of 0.80; however, both pilots were lit when the operator checked. Pilot outages summarized in CRPT014532 during the reporting period were as follows: January 31, 2016 pilot indicated outage for 1.25 hours; both pilots were lit when the operator checked. February 2, 2016 maintenance caused 0.36 hours of outage. February 18, 2016, maintenance caused 3.46 hours of outage. May 10, 2016 maintenance and testing caused 4.68 hours of outage.**

SEMIANNUAL SUBPART Kb			
Report ID	Received Date	Reporting Period	Report Title
CRPT026805	1/29/2018	7/1 – 12/31/2017	40 CFR 60 Subpart Kb Semi-Annual
CRPT022863	7/31/2017	1/1 – 6/30/2017	40 CFR 60 Subpart Kb Semi-Annual
CRPT018372	1/26/2017	7/1 – 12/31/2016	40 CFR 60 Subpart Kb Semi-Annual
CRPT014532	8/1/2016	1/1 – 6/30/2016	40 CFR 60 Subpart Kb Semi-Annual

## 40 CFR 60 SUBPART JJJJ REQUIREMENTS FOR STATIONARY SPARK IGNITION INTERNAL COMBUSTION ENGINES

### SUBPART JJJJ REQUIREMENTS

[40 CFR 60 Subparts A and JJJJ; WAQSR Ch 5, Sec 2 and Ch 6, Sec 2 Permit MD-11561]

The permittee shall meet all applicable requirements of 40 CFR 60 Subparts A and JJJJ, and WAQSR Ch 5, Sec 2, as they apply to affected stationary spark ignition (SI) internal combustion engines (ICE). (As required by condition F6(b), if an engine is replaced or reconstructed, subpart applicability will need to be reevaluated and a statement regarding applicability submitted to the Division.) For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator. An affected source is defined at §60.4230, including the Caterpillar G3612TALE compressor engines, ENG001-ENG006 (E1-E6).

**STATUS: No issues were noted. Engines ENG001 – ENG006 are subject to 40 part 60, subpart JJJJ. ENG013 and ENG014 are not subject to the applicable requirements because the engines were manufactured prior to July 2007. ENG001 through ENG006 records of conducted maintenance were provided electronically. Records were maintained and viewed during records review. The operator has indicated the two Caterpillar G3516BLE generator engines, ENG013 and ENG014 (G5 and G6), and the Caterpillar G3406TA VRU compressor engine, ENG010 (VRU), are not subject to Subpart JJJJ based on their date of construction and date of manufacture.**

## 40 CFR 60 SUBPART OOOO REQUIREMENTS FOR CRUDE OIL AND NATURAL GAS PRODUCTION, TRANSMISSION AND DISTRIBUTION

### SUBPART OOOO REQUIREMENTS

[40 CFR 60 Subparts A and OOOO; and WAQSR Ch 5, Sec 2]

The permittee shall meet all applicable requirements of 40 CFR 60 Subparts A and OOOO and WAQSR Ch 5, Sec 2, as they apply to affected facilities as specified under §60.5365.

**STATUS: No issues were noted.**

## 40 CFR 60 SUBPART OOOOa REQUIREMENTS FOR CRUDE OIL AND NATURAL GAS FACILITIES

### SUBPART OOOOa REQUIREMENTS

[40 CFR 60 Subparts A and OOOOa; and WAQSR Ch 5, Sec 2]

The permittee shall meet all applicable requirements of 40 CFR 60 Subparts A and OOOOa and WAQSR Ch 5, Sec 2, as they apply to affected facilities as specified under §60.5365a.

**STATUS: No issues were noted. Enterprise maintains an inventory of the gas powered pneumatics. Installation of a new compressor or upgrade of an existing one could trigger applicability specific to the LDAR requirements.**

WAQSR CHAPTER 5, SECTION 3 NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS) AND 40 CFR 63 SUBPART ZZZZ REQUIREMENTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES

SUBPART ZZZZ REQUIREMENTS

[40 CFR 63 Subparts A and ZZZZ; WAQSR Ch 5, Sec 3; Ch 6, Sec 2 Permit MD-11561]

The permittee shall meet all applicable requirements of 40 CFR 63 Subparts A and ZZZZ and WAQSR Ch 5, Sec 3, as they apply to each affected source as indicated in §63.6590(a). An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. (As required by condition F6(b), if an engine is replaced or reconstructed, subpart applicability will need to be re-evaluated and a statement regarding applicability submitted to the Division.) This facility is currently identified as a major source of HAP emissions. Affected sources at this facility include the compressor engines, ENG001-ENG006 and ENG010 (E1-E6 and VRU), and the generator engines, ENG013 and ENG014 (G5 and G6).

**STATUS: No issues were noted. No engines have been reported to be replaced or reconstructed during this inspection period. Semiannual reports were submitted in accordance to subpart ZZZZ §63.6605 and §63.6640.**

SEMIANNUAL SUBPART ZZZZ REPORTS			
Report ID	Received Date	Reporting Period	Report Title
CRPT026848	1/29/2018	7/1 – 12/31/2017	40 CFR 63, Subpart ZZZZ Semiannual Report
CRPT022835	7/24/2017	1/1 – 6/30/2017	40 CFR 63, Subpart ZZZZ Semiannual Report
CRPT018036	1/23/2017	7/1 – 12/31/2016	40 CFR 63, Subpart ZZZZ Semiannual Report
CRPT014284	7/26/2016	1/1 – 6/30/2016	40 CFR 63, Subpart ZZZZ Semiannual Report

40 CFR 63 SUBPART DDDDD REQUIREMENTS FOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS

SUBPART DDDDD REQUIREMENTS

[40 CFR 63 Subparts A and DDDDD; and WAQSR Ch 5, Sec 3]

The permittee shall meet all applicable requirements of 40 CFR 63 Subparts A and DDDDD and WAQSR Ch 5, Sec 3, as they apply to owners or operators of industrial, commercial, or institutional boilers or process heaters as defined in §63.7575 that are located at, or are part of, a major source of HAPs as defined in §63.2, except that for oil and natural gas production facilities, a major source of HAPS is as defined in §63.761 (40 CFR 63 Subpart HH). The types of boilers and process heaters listed in §63.7491 are not subject to Subpart DDDDD. This subpart applies to:

- (a) The collection of existing industrial, commercial, and institutional boilers and process heaters within a subcategory, including the 3.8 MMBtu/hr hot oil heater, HET001 (H1), and the 1.6 MMBtu/hr fuel gas heater, HET002 (H2).

- (b) New or reconstructed industrial, commercial, or institutional boilers or process heaters.

**STATUS: No issues were noted. Enterprise conducted all of the monitoring, reporting and recordkeeping outlined by this condition. H-1 Hot Oil Heater - Most recent tune-up occurred January 28, 2016, the next tune-up is due in 2021. The most recent burner inspection was July 26, 2016, next burner inspection is due in 2021. H-2 Fuel Gas Heater – Most recent tune-up occurred January 28, 2016, the next tune-up is due in 2021. The most recent burner inspection occurred January 28, 2016, the next burner inspection is due in 2021.**

#### WAQSR CHAPTER 7, SECTION 3 COMPLIANCE ASSURANCE MONITORING (CAM) REQUIREMENTS

##### (CAM-1) COMPLIANCE ASSURANCE MONITORING REQUIREMENTS

[WAQSR Ch 7, Sec 3(b) and (c)]

The permittee shall follow the CAM plan attached as Appendix C of this permit and meet all CAM requirements of WAQSR Chapter 7, Section 3 as they apply to the combustion chamber, FLR002/FLA003 (CU-1). All CAM requirements in this permit apply upon permit issuance. Compliance with the source specific monitoring, recordkeeping, and reporting requirements of this permit meets the monitoring, recordkeeping, and reporting requirements of WAQSR Ch 7, Sec 3, except for additional requirements specified under conditions CAM-2 through CAM-4.

##### (CAM-2) OPERATION OF APPROVED MONITORING

[WAQSR Ch 7, Sec 3(g)]

- (a) At all times, the permittee shall maintain the monitoring under this section, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (b) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities, the permittee shall conduct all monitoring in continuous operation (or at all required intervals) at all times that the pollutant specific emissions unit is operating.
- (c) Upon detecting an excursion, the permittee shall restore operation of the pollutant-specific emission unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices. The response shall include minimizing the period of any start-up, shutdown or malfunction and taking any corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion.
- (d) If the permittee identifies a failure to achieve compliance with an emission limit for which the monitoring did not provide an indication of an excursion while providing valid data, or the results of compliance or performance testing documents a need to modify the existing indicator ranges, the permittee shall promptly notify the

Division and, if necessary, submit a proposed modification to this permit to address the necessary monitoring changes.

(CAM-3) QUALITY IMPROVEMENT PLAN (QIP) REQUIREMENTS

[WAQSR Ch 7, Sec 3(h)]

- (a) If the Division or the EPA Administrator determines, based on available information, that the permittee has used unacceptable procedures in response to an excursion or exceedance, the permittee may be required to develop and implement a Quality Improvement Plan (QIP).
- (b) If required, the permittee shall maintain a written Quality Improvement Plan (QIP) and have it available for inspection.
- (c) The plan shall include procedures for conducting one or more of the following:
  - (i) Improved preventative maintenance practices.
  - (ii) Process operation changes.
  - (iii) Appropriate improvements to control methods.
  - (iv) Other steps appropriate to correct control.
  - (v) More frequent or improved monitoring (in conjunction with (i) - (iv) above).
- (d) If a QIP is required, the permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.
- (e) Following implementation of a QIP, upon any subsequent determination under paragraph (a) above, the Division may require the permittee to make reasonable changes to the QIP if the QIP failed to address the cause of control device problems, or failed to provide adequate procedures for correcting control device problems as expeditiously as practicable.
- (f) Implementation of a QIP shall not excuse the permittee from compliance with any existing emission limit(s) or any existing monitoring, testing, reporting, or recordkeeping requirements that may be applicable to the facility.

(CAM-4) SAVINGS PROVISIONS

[WAQSR Ch 7, Sec 3(j)]

Nothing in the CAM regulations shall excuse the permittee from compliance with any existing emission limit or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may be applicable to the facility.

**STATUS: No issues were noted. Semiannual Subpart Kb reports have been provided and are summarized in Subpart Kb Requirements in this inspection. CAM-2 through CAM-4 were met and in accordance with Enterprise Operating Plan and VOC CAM Plan. Pilot temperature and inlet pressures were recorded. Testing and monitoring requirements under permit condition F13 indicate no excursions or downtime incidents occurred during the reporting period. As specified in the CAM plan a QIP has not been required.**

COMPLIANCE CERTIFICATION AND SCHEDULE

## Compliance Certification

[WAQSR Ch 6, Sec 3(h)(iii)(E)]

- (C1) (a) The permittee shall submit by January 31 each year a certification addressing compliance with the requirements of this permit. The certification shall be submitted as a stand-alone document separate from any monitoring reports required under this permit.
- (b) (i) For the facility engine configuration, the permittee shall assess compliance with condition F1 by verifying the number of engines, each engine make and model, and the associated emission control devices installed at the facility match the permitted engine configuration requirements.
- (ii) For fugitive equipment leak VOC emissions, the permittee shall assess compliance with condition F2 by conducting the monitoring required by condition F14 and by reviewing the records kept in accordance with condition F19.
- (iii) For visible emission from the combustion chamber, FLR002/FLA003 (CU-1), and the process flare, FLR001/FLA004 (PF-1), the permittee shall assess compliance with condition F3(a) by conducting the monitoring required by condition F9(a).
- (iv) For visible emissions from other sources, the permittee shall assess compliance with condition F3(b) by conducting the monitoring required by condition F9(b).
- (v) For NOX, CO, VOC, and formaldehyde emissions from the engines, the permittee shall assess compliance with conditions F4(a) through (c) by conducting the testing and monitoring required by conditions F8, F10(a) and F12.
- (vi) For NOX, CO, and VOC emissions from the combustion chamber, FLR002/FLA003 (CU-1), the permittee shall assess compliance with conditions F4(a) and F5(e) by conducting the monitoring required by condition F10(b) and the CAM for VOC emissions required by condition F13.
- (vii) For the distance piece vent VOC emission rate, the permittee shall assess compliance with condition F4(e) by conducting the monitoring required by condition F10(d) and reviewing the records kept in accordance with condition F15(f).
- (viii) For engine operation and maintenance requirements, the permittee shall assess compliance with condition F5(a) by reviewing the records kept in accordance with condition F17.
- (ix) For the compressor starter requirements, the permittee shall assess compliance with condition F5(b) by conducting the monitoring required by condition F10(e) and reviewing the records kept in accordance with condition F16(a).
- (x) For control requirements for the horizontal storage tanks, TNK001-TNK003 (T1-T3), the permittee shall assess compliance with conditions



- F5(c) and (d) by conducting the monitoring required by condition F13(a), reviewing records kept in accordance with condition F18(a), and verifying that vapors from condensate flashing are routed to the combustion chamber FLR002/FLA003 (CU-1).
- (xi) For the process flare, FLR001/FLA004 (PF-1), the permittee shall assess compliance with the operational requirements in conditions F5(f)-(h) by conducting the monitoring specified in condition F11, reviewing records kept in accordance with conditions F16(b)-(d), and verifying that the vapors from the condensate flash tank, stabilizer tower, and safety relief devices are routed as specified in condition F5(f).
  - (xii) For greenhouse gas reporting, the permittee shall assess compliance with condition F24 by verifying that reports were submitted in accordance with condition F24(a) and (b).
  - (xiii) For the three 1,000 bbl horizontal storage tanks, TNK001-TNK003 (T1-T3), and the associated closed vent system and control device (FLR001/FLA003 [CU-1]) the permittee shall assess compliance with 40 CFR 60 Subpart Kb by conducting any testing and monitoring required by §§60.113b and 60.116b, and by reviewing the records required by §§60.115b and 60.116b.
  - (xiv) For any engine subject to 40 CFR 60 Subpart JJJJ, the permittee shall assess compliance with Subpart JJJJ by conducting any applicable testing and monitoring required by §§60.4237, 60.4243, and 60.4244, and by reviewing the records required by §§60.4245 and 60.4246.
  - (xv) For any affected facility subject to 40 CFR 60 Subpart OOOO, the permittee shall assess compliance with Subpart OOOO by conducting any applicable testing and monitoring required by §§60.5413 through 60.5417 and by reviewing any applicable records required by §60.5420.
  - (xvi) For any affected facility subject to 40 CFR 60 Subpart OOOOa, the permittee shall assess compliance with Subpart OOOOa by conducting any applicable testing and monitoring required by §§60.5410a through 60.5417a and by reviewing any applicable records required by §60.5420a.
  - (xvii) For the engines, the permittee shall assess compliance with 40 CFR 63 Subpart ZZZZ and condition F4(c) by conducting any testing and monitoring required by §§63.6610 through 63.6640 and by reviewing the records required by §§63.6655 and 63.6665.
  - (xviii) For the heaters HET001 and HET002 (H1 and H2), the permittee shall assess compliance with 40 CFR 63 Subpart DDDDD by conducting any applicable testing and monitoring required by §§63.7505 through 63.7541 and by reviewing any records required by §§63.7555 and 63.7560.
- (c) The compliance certification shall include:
- (i) The permit condition or applicable requirement that is the basis of the certification;
  - (ii) The current compliance status;

- (iii) Whether compliance was continuous or intermittent; and
- (iv) The methods used for determining compliance.
- (d) For any permit conditions or applicable requirements for which the source is not in compliance, the permittee shall submit with the compliance certification a proposed compliance plan and schedule for Division approval.
- (e) The compliance certification shall be submitted to the Division in accordance with condition G4 of this permit and to the Assistant Regional Administrator, Office of Enforcement, Compliance, and Environmental Justice (8ENF-T), U.S. EPA - Region VIII, 1595 Wynkoop Street, Denver, CO 80202-1129.
- (f) Determinations of compliance or violations of this permit are not restricted to the monitoring requirements listed in paragraph (b) of this condition; other credible evidence may be used.

**STATUS: No issues were noted.**

ANNUAL COMPLIANCE CERTIFICATION			
Report ID	Received Date	Reporting Period	Report Title
CRPT026772	1/29/2018	2017	Annual Compliance Certification 2017
CRPT018686	1/30/2017	2016	Annual Compliance Certification 2016

#### Compliance Schedule

[WAQSR Ch 6, Sec 3(h)(iii)(C) and (D)]

- (C2) The permittee shall continue to comply with the applicable requirements with which the permittee has certified that it is already in compliance.
- (C3) The permittee shall comply in a timely manner with applicable requirements that become effective during the term of this permit.

**STATUS: No issues were noted.**

#### GENERAL PERMIT CONDITIONS

##### Powers of the Administrator:

[W.S. 35-11-110]

- (G1) (a) The Administrator may require the owner or operator of any point source to complete plans and specifications for any application for a permit required by the Wyoming Environmental Quality Act or regulations made pursuant thereto and require the submission of such reports regarding actual or potential violations of the Wyoming Environmental Quality Act or regulations thereunder.
- (b) The Administrator may require the owner or operator of any point source to establish and maintain records; make reports; install, use and maintain monitoring equipment or methods; sample emissions, or provide such other information as may be reasonably required and specified.

**STATUS: No issues were noted.**

Permit Renewal and Expiration:

[WAQSR Ch 6, Sec 3(c)(i)(C), (d)(ii), (d)(iv)(B), and (h)(i)(B)] [W.S. 35-11-206(f)]

(G2) This permit is issued for a fixed term of five years. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted at least six months prior to the date of permit expiration. If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit is not a violation of WAQSR Chapter 6, Section 3 until the Division takes final action on the renewal application. This protection shall cease to apply after a completeness determination if the applicant fails to submit by the deadline specified in writing by the Division any additional information identified as being needed to process the application.

**STATUS: No issues were noted.**

[WAQSR Ch 6, Sec 3(c)(iii)]

(G3) The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after this permit is issued.

**STATUS: No issues were noted.**

Submissions:

[WAQSR Ch 6, Sec 3(c)(iv)] [W.S. 35-11-206(c)]

(G4) Any application form, report, or certification submitted shall be certified as being true, accurate, and complete by a responsible official.

(a) Submissions to the Division including reports, certifications, and emission inventories required under this permit shall be submitted either:

(i) Electronically through the Division's IMPACT system (<https://airimpact.wyo.gov>); or

(ii) As separate, stand-alone documents sent to:  
Administrator, Air Quality Division  
Department of Environmental Quality  
200 West 17th Street  
Cheyenne, Wyoming 82002

(b) Submissions to EPA.

(i) Each certification required under condition C1 of this permit shall also be sent to:

Assistant Regional Administrator  
Office of Enforcement, Compliance, and Environmental Justice  
(8ENF-T)  
U.S. EPA - Region VIII  
1595 Wynkoop Street  
Denver, CO 80202-1129.

(ii) All other required submissions to EPA shall be sent to:

Office of Partnerships and Regulatory Assistance  
Air and Radiation Program (8P AR)  
U.S. EPA Region VIII  
1595 Wynkoop Street  
Denver, CO 80202-1129

**STATUS: No issues were noted. Enterprise is currently preparing to submit documents electronically through IMPACT.**

Changes for Which No Permit Revision Is Required:

[WAQSR Ch 6, Sec 3(d)(iii)]

- (G5) The permittee may change operations without a permit revision provided that:
- (a) The change is not a modification under any provision of title I of the Clean Air Act;
  - (b) The change has met the requirements of Chapter 6, Section 2 of the WAQSR and is not a modification under Chapter 5, Section 2 or Chapter 6, Section 4 of the WAQSR and the changes do not exceed the emissions allowed under the permit (whether expressed therein as a rate of emissions or in terms of total emissions); and
  - (c) The permittee provides EPA and the Division with written notification at least 14 days in advance of the proposed change. The permittee, EPA, and the Division shall attach such notice to their copy of the relevant permit. For each such change, the written notification required shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The permit shield, if one exists for this permit, shall not apply to any such change made.

**STATUS: No issues were noted.**

Transfer of Ownership or Operation:

[WAQSR Ch 6, Sec 3(d)(v)(A)(IV)]

- (G6) A change in ownership or operational control of this facility is treated as an administrative permit amendment if no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Division.

**STATUS: No issues were noted.**

Reopening for Cause:

[WAQSR Ch 6, Sec 3(d)(vii)] [W.S. 35-11-206(f)(ii) and (iv)]

- (G7) The Division will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:
- (a) Additional applicable requirements under the Clean Air Act or the WAQSR that become applicable to this source if the remaining permit term is three or more years. Such reopening shall be completed not later than 18 months after promulgation of

the applicable requirement. No reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended.

- (b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit.
- (c) The Division or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- (d) The Division or EPA determines that the permit must be revised or revoked to assure compliance with applicable requirements.

**STATUS: No issues were noted.**

Annual Fee Payment:

[WAQSR Ch 6, Sec 3(f)(i), (ii), and (vi)] [W.S. 35-11-211]

- (G8) The permittee shall, as a condition of continued operations, submit an annual fee to the Division as established in Chapter 6, Section 3 (f) of the WAQSR. The Division shall give written notice of the amount of fee to be assessed and the basis for such fee assessment annually. The assessed fee is due on receipt of the notice unless the fee assessment is appealed pursuant to W.S. 35-11-211(d). If any part of the fee assessment is not appealed it shall be paid to the Division on receipt of the written notice. Any remaining fee which may be due after completion of the appeal is immediately due and payable upon issuance of the Council's decision. Failure to pay fees owed the Division is a violation of Chapter 6, Section 3 (f) and W.S. 35-11-203 and may be cause for the revocation of this permit.

**STATUS: No issues were noted.**

Annual Emissions Inventories:

[WAQSR Ch 6, Sec 3(f)(v)(G)]

- (G9) The permittee shall submit an annual emission inventory for this facility to the Division for fee assessment and compliance determinations within 60 days following the end of the calendar year. The emissions inventory shall be in a format specified by the Division and be submitted in accordance with condition G4(a) of this permit.

**STATUS: There is no concern regarding this condition. Annual Emission Inventories have been provided within 60 days following the end of the calendar year.**

ANNUAL EMISSIONS (tons)			
Year	NOx	CO	VOC
2017	100.89	13.98	69.33
2016	111.95	16.65	72.25

Severability Clause:

[WAQSR Ch 6, Sec 3(h)(i)(E)]

- (G10) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

**STATUS: No issues were noted.**

Compliance:

[WAQSR Ch 6, Sec 3(h)(i)(F)(I) and (II)] [W.S. 35-11-203(b)]

- (G11) The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Air Act, Article 2 of the Wyoming Environmental Quality Act, and the WAQSR and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**STATUS: No issues were noted.**

Permit Actions:

[WAQSR Ch 6, Sec 3(h)(i)(F)(III)] [W.S. 35-11-206(f)]

- (G12) This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**STATUS: No issues were noted.**

Property Rights:

[WAQSR Ch 6, Sec 3(h)(i)(F)(IV)]

- (G13) This permit does not convey any property rights of any sort, or any exclusive privilege.

**STATUS: No issues were noted.**

Duty to Provide Information:

[WAQSR Ch 6, Sec 3(h)(i)(F)(V)]

- (G14) The permittee shall furnish to the Division, within a reasonable time, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permit, including information claimed and shown to be confidential under W.S. 35-11-1101 (a) of the Wyoming Environmental Quality Act. Upon request by the Division, the permittee shall also furnish confidential information directly to EPA along with a claim of confidentiality.

**STATUS: No issues were noted.**

Emissions Trading:

[WAQSR Ch 6, Sec 3(h)(i)(H)]

(G15) No permit revision is required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

**STATUS: No issues were noted.**

Inspection and Entry:

[WAQSR Ch 6, Sec 3(h)(iii)(B)] [W.S. 35-11-206(c)]

(G16) Authorized representatives of the Division, upon presentation of credentials and other documents as may be required by law, shall be given permission to:

- (a) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) have access to and copy at reasonable times any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) sample or monitor any substances or parameters at any location, during operating hours, for the purpose of assuring compliance with this permit or applicable requirements.

**STATUS: No issues were noted.**

Excess Emissions Due to an Emergency:

[WAQSR Ch 6, Sec 3(l)]

(G17) The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency, as defined in Ch 6, Sec 3(l)(i) of the WAQSR. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- (b) the permitted facility was, at the time, being properly operated;
- (c) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit;
- (d) The permittee submitted notice of the emergency to the Division within one working day of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

**STATUS: No issues were noted.**

Diluting and Concealing Emissions:

[WAQSR Ch 1, Sec 4]

- (G18) No person shall cause or permit the installation or use of any device, contrivance, or operational schedule which, without resulting in reduction of the total amount of air contaminant released to the atmosphere, shall dilute or conceal an emission from a source. This condition shall not apply to the control of odors.

**STATUS: No issues were noted.**

Unavoidable Equipment Malfunction:

[WAQSR Ch 1, Sec 5]

- (G19) (a) Any source believing that any emissions in excess of established regulation limits or standards resulted from an unavoidable equipment malfunction, shall notify the Division within 24 hours of the incident via telephone, electronic mail, fax, or other similar method. A detailed description of the circumstances of the incident as described in paragraph 5(a)(i)(A) Chapter 1, including a corrective program directed at preventing future such incidents, must be submitted within 14 days of the onset of the incident. The Administrator may extend this 14-day time period for cause.
- (b) The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that an unavoidable equipment malfunction occurred.

**STATUS: No issues were noted. The Division was notified within 24 hours of an unavoidable equipment malfunction via telephone and electronic mail. A detailed description of the incidents and corrective program were submitted within 14 days of the onset of the incident.**

UNAVOIDABLE EQUIPMENT MALFUNCTION REPORTS (G19)					
Report ID	Received Date	Malfunction Date	Description	VOC (tons/event)	Emissions (Mscf)
CRPT027737	3/8/2018	3/7/2018	Fire Eye Malfunction	0.33	12.23
CRPT027374	2/23/2018	2/8/2018	Delta-V Software Upgrade	0.08	2.12
CRPT025471	12/4/2017	11/29/2017	Fire Eye Malfunction	0.33	12.23
CRPT025180	11/20/2017	11/11/2017	Facility ESD Blow Down	0.33	12.23

Fugitive Dust:

[WAQSR Ch 3, Sec 2(f)]

- (G20) The permittee shall minimize fugitive dust in compliance with standards in Ch 3, Sec 2(f) of WAQSR for construction/demolition activities, handling and transportation of materials, and agricultural practices.

**STATUS: No issues were noted.**

Carbon Monoxide:

[WAQSR Ch 3, Sec 5]



- (G21) The emission of carbon monoxide in stack gases from any stationary source shall be limited as may be necessary to prevent ambient standards from being exceeded.

**STATUS: No issues were noted.**

Asbestos:

[WAQSR Ch 3, Sec 8]

- (G22) The permittee shall comply with emission standards for asbestos during abatement, demolition, renovation, manufacturing, spraying and fabricating activities.

- (a) No owner or operator shall build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutants to achieve compliance with a visible emissions standard, and the piecemeal carrying out of an operation to avoid coverage by a standard that applies only to operations larger than a specified size.
- (b) All owners and operators conducting an asbestos abatement project, including an abatement project on a residential building, shall be responsible for complying with Federal requirements and State standards for packaging, transportation, and delivery to an approved waste disposal facility as provided in paragraph (m) of Ch 3, Sec 8.
- (c) The permittee shall follow State and Federal standards for any demolition and renovation activities conducted at this facility, including:
  - (i) A thorough inspection of the affected facility or part of the facility where the demolition or renovation activity will occur shall be conducted to determine the presence of asbestos, including Category I and Category II non-friable asbestos containing material. The results of the inspection will determine which notification and asbestos abatement procedures are applicable to the activity.
  - (ii) The owner or operator shall follow the appropriate notification requirements of Ch 3, Sec 8(i)(ii).
  - (iii) The owner or operator shall follow the appropriate procedures for asbestos emissions control, as specified in Chapter 3, Section 8(i)(iii).
- (d) No owner or operator of a facility may install or reinstall on a facility component any insulating materials that contain commercial asbestos if the materials are either molded and friable or wet-applied and friable after drying. The provisions of this paragraph do not apply to spray-applied insulating materials regulated under paragraph (j) of Ch 3, Sec 8.
- (e) The permittee shall comply with all other requirements of WAQSR Ch 3, Sec 8.

**STATUS: No issues were noted.**

Construction Permit Application Commitments:

[WAQSR Ch 6, Sec 2, 4]

- (G23) All substantive commitments and descriptions set forth in applications for WAQSR Chapter 6 Section 2 and 4 permits and waivers referenced in this operating permit, unless superseded by a specific condition of this operating permit or by subsequent actions under Chapter 6 or W.S. 35-11-110, are enforceable as conditions of this permit.

**STATUS: No issues were noted. No new construction actions at this facility.**

Open Burning Restrictions:

[WAQSR Ch 10, Sec 2]

- (G24) The permittee conducting an open burn shall comply with all rules and regulations of the Wyoming Department of Environmental Quality, Division of Air Quality, and with the Wyoming Environmental Quality Act.

- (a) No person shall burn prohibited materials using an open burning method, except as may be authorized by permit. "Prohibited materials" means substances including, but not limited to; natural or synthetic rubber products, including tires; waste petroleum products, such as oil or used oil filters; insulated wire; plastic products, including polyvinyl chloride ("PVC") pipe, tubing and connectors; tar, asphalt, asphalt shingles, or tar paper; railroad ties; wood, wood waste, or lumber that is painted or chemically treated; explosives or ammunition; batteries; hazardous waste products; asbestos or asbestos containing materials; or materials which cause dense smoke discharges, excluding refuse and flaring associated with oil and gas well testing, completions and well workovers.
- (b) No person or organization shall conduct or cause or permit open burning for the disposal of trade wastes, for a salvage operation, for the destruction of fire hazards if so designated by a jurisdictional fire authority, or for firefighting training, except when it can be shown by a person or organization that such open burning is absolutely necessary and in the public interest. Any person or organization intending to engage in such open burning shall file a request to do so with the Division.

**STATUS: No issues were noted. No open burning has occurred at this facility.**

Sulfur Dioxide Emission Trading and Inventory Program:

[WAQSR Ch 14]

- (G25) Any BART (Best Available Retrofit Technology) eligible facility, or facility which has actual emissions of SO<sub>2</sub> greater than 100 tpy in calendar year 2000 or any subsequent year, shall comply with the applicable requirements of WAQSR Ch 14, Sections 1 through 3, with the exceptions described in sections 2(c) and 3(a).

**STATUS: No issues were noted.**

Stratospheric Ozone Protection Requirements:

[40 CFR 82]

- (G26) The permittee shall comply with all applicable Stratospheric Ozone Protection Requirements, including but not limited to:
- (a) Standards for Appliances [40 CFR 82, Subpart F]

The permittee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:

- (i) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
  - (ii) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  - (iii) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  - (iv) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC-like appliance” is defined at §82.152).
  - (v) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.166.
  - (vi) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
  - (vii) The permittee shall comply with all other requirements of Subpart F.
- (b) Standards for Motor Vehicle Air Conditioners [40 CFR 82, Subpart B]  
If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant.

**STATUS: No issues were noted.**

#### STATE ONLY PERMIT CONDITIONS

The conditions listed in this section are State only requirements and are not federally enforceable.

#### Ambient Standards

- (S1) The permittee shall operate the emission units described in this permit such that the following ambient standards are not exceeded:

POLLUTANT	STANDARD*	CONDITION	WAQSR CH. 2, SEC.
PM <sub>10</sub> particulate matter	50 micrograms per cubic meter	annual arithmetic mean	2 (a)
	150 micrograms per cubic meter	24-hr average concentration with not more than one exceedance per year	

PM <sub>2.5</sub> particulate matter	12.0 micrograms per cubic meter	annual arithmetic mean	2 (b) & (c)
	15 micrograms per cubic meter	annual arithmetic mean	
	35 micrograms per cubic meter	98 <sup>th</sup> percentile 24-hr average concentration	
Nitrogen dioxide	53 parts per billion	annual average concentration	3
	100 parts per billion	three-year average of the annual 98 <sup>th</sup> percentile of the daily maximum 1-hr average concentration	
	0.053 parts per million	annual arithmetic mean	
Sulfur dioxide	75 parts per billion	three-year average of the annual (99 <sup>th</sup> percentile) of the daily max 1-hr average	4
	0.5 parts per million	3-hr blocks not to be exceeded more than once per calendar year	
Carbon monoxide	10 milligrams per cubic meter	max 8-hr concentration with not more than one exceedance per year	5
	40 milligrams per cubic meter	max 1-hr concentration with not more than one exceedance per year	
Ozone	0.075 parts per million	three-year average of the annual fourth-highest daily maximum 8-hr average concentration	6
Hydrogen sulfide	70 micrograms per cubic meter	½ hour average not to be exceeded more than two times per year	7
	40 micrograms per cubic meter	½ hour average not to be exceeded more than two times in any five consecutive days	
Suspended sulfate	0.25 milligrams SO <sub>3</sub> per 100 square centimeters per day	maximum annual average	8
	0.50 milligrams SO <sub>3</sub> per 100 square centimeters per day	maximum 30-day value	
Lead and its compounds	0.15 micrograms per cubic meter	maximum arithmetic 3-month mean concentration for a 3-year period	10

\*Exceedances of these standards shall be determined using the procedures in 40 CFR 50.

**STATUS: No issues were noted.**

Hydrogen Sulfide:

[WAQSR Ch 3, Sec 7]

(S2) Any exit process gas stream containing hydrogen sulfide which is discharged to the atmosphere from any source shall be vented, incinerated, flared or otherwise disposed of in such a manner that ambient sulfur dioxide and hydrogen sulfide standards are not exceeded.

**STATUS: No issues were noted.**

Odors:

[WAQSR Ch 2, Sec 11]

- (S3) (a) The ambient air standard for odors from any source shall be limited to an odor emission at the property line which is undetectable at seven dilutions with odor free air as determined by a scentometer as manufactured by the Barnebey Cheney Company or any other instrument, device, or technique designated by the Division as producing equivalent results. The occurrence of odors shall be measured so that at least two measurements can be made within a period of one hour, these determinations being separated by at least 15 minutes.
- (b) Odor producing materials shall be stored, transported, and handled in a manner that odors produced from such materials are confined and that accumulation of such materials resulting from spillage or other escape is prevented.

**STATUS: No issues were noted. No odors were observed during the inspection.**

## **FACILITY INSPECTION SUMMARY**

Once the records and permit review were complete, we headed to the compressor station. Facility representatives met me at the facility. Facility representatives included Brian Stone, Jim Pilon, Ray Pap, Elmer Eaker, John Forester, Jordan Kowart. Ambient conditions at the time of facility inspection were sunny, approximately 12 degrees Fahrenheit (12°F), and calm. Signage at the facility identified this facility as Enterprise Products Falcon Compressor Station.

I walked through the entire facility. The walk through inspection included observations of the different equipment at the facility. The flash tank where higher ends flash off and the liquids go to the condensate tanks. The 1000 barrel condensate tanks can be viewed in photo #15 below. The tanks are also controlled using blanket gas. Any tank vapors will go to a knockout prior to reaching the combustion chamber to remove any residual liquids. The tanks are emptied using a truck loadout station next to the tanks. The truck loadout can also be viewed in photo #15.

The TCI 4000 combustion chamber was also observed and can be observed in photo #11. The combustor is used to control any emissions coming from the condensate tanks and is referred to as the low pressure combustor by representatives. The combustor also has two pilots. Readings on the pilot at the time of inspection were 774 degrees Fahrenheit on the right thermocouple, and 723 degrees Fahrenheit on the left thermocouple. The operator indicated that if the thermocouple reads less than 400 degrees then it means the pilot is out. The pilots have an auto igniter and will attempt to relite three times. If it isn't successful then it will ESD. Photos of the thermocouple instrument reading panel can be observed in photos #12.

I also observed that the VRU was disconnected and blinded off. Photos of the VRU can be observed below in photo #4. Because the VRU is not in use the Hot Oil Heater with stabilizer skid

and cooling tower were not in use. Photos of the Hot Oil Heater and stabilizer skid can be observed below in photo #13.

Additionally, because the VRU is not in use the emergency flare has been re-designated as a Process Flare and can be viewed below in photo #5. Process flare is also referred to as the high pressure flare at the facility. Waste gas goes through the knockout pump and pumps any liquids to the condensate tank. Emissions are destroyed in the process flare. The flare has two pilots with thermocouples and continuous reading device.

While inspecting the engines, I noted engine serial numbers and pre/post catalyst temperatures of each engine. Photos of the engines and emission controls can be observed in photos #6 and #7. All of the catalyst temperatures were within the range of the permitted temperatures. All six of the engines were running. According to the operator, the horsepower rating for engines ENG001 through ENG006, have been downsized using programming from Caterpillar to 3550 hp. I also observed the generators (ENG013 and ENG014). The generator stacks can be observed below in photo #8 and #9. The generators were in use at the time of the inspection.

During walkthrough of the facility an inventory and status of equipment was noted and is summarized below.

SOURCE INVENTORY AND STATUS				
Source ID	Source Description	Size	Serial Number	Operating Status
ENG001 (E1)	Caterpillar G3612LE Compressor Engine	3668 hp	BKE00712	Operating
ENG002 (E2)	Caterpillar G3612LE Compressor Engine	3668 hp	BKE00713	Operating
ENG003 (E3)	Caterpillar G3612LE Compressor Engine	3668 hp	BKE00715	Operating
ENG004 (E4)	Caterpillar G3612LE Compressor Engine	3668 hp	BKE00719	Operating
ENG005 (E5)	Caterpillar G3612LE Compressor Engine	3668 hp	BKE00721	Operating
ENG006 (E6)	Caterpillar G3612LE Compressor Engine	3668 hp	BKE00722	Operating
ENG013 (G5)	Caterpillar 3516B LE Generator Engine	1800 hp	CT200546	Operating
ENG014 (G6)	Caterpillar 3516B LE Generator Engine	1800 hp	ZBC00123	Operating
ENG010 (VRU)	Caterpillar 3406TA	245 hp		Not in use
FLR001 FL-1	Process Flare	N/A		Operating
FLR002 (CU-1)	TCI 4000 Combustion Chamber	N/A		Operating
TNK001-TNK003 (TK1-TK3)	Horizontal Condensate Storage Tanks	1000 bbl		Operating
TNK004 (T5)	Produced water tank not in service	400 bbl		Not in use
FUG001	Fugitives	N/A		
PNE001	Pneumatic Controllers	N/A		
LUD001	Truck Loading, Condensate	N/A		Operating
HET001 (H-1)	Hot Oil Heater (indirect heat)	3.8 MMBtu/hr		Not in use
HET002 (H-2)	Fuel Gas Heater (indirect heat)	1.6 MMBtu/hr		Not in use

## PHOTOGRAPHS

**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 5/18/2016

**PHOTO #:** 1

**DESCRIPTION:** Facility Identification



**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 5/18/2016

**PHOTO #:** 2

**DESCRIPTION:** Overall view of Falcon Compressor Station



**PHOTOGRAPHER:** Etcheverry  
**DESCRIPTION:** Flash Tank

**DATE TAKEN:** 2/13/2018

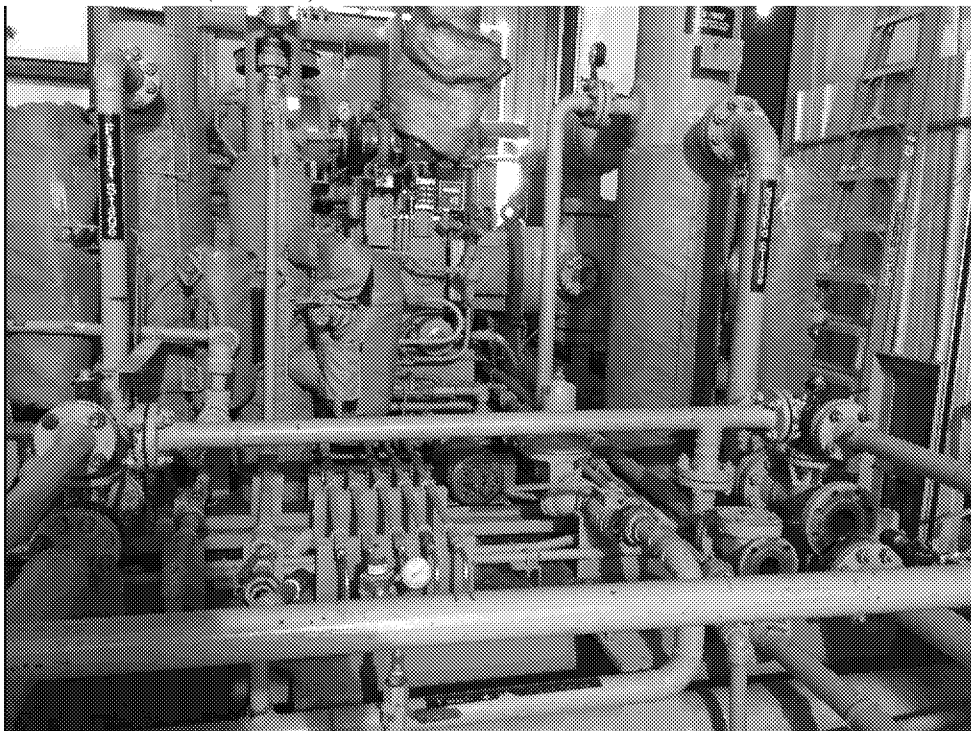
**PHOTO #:** 3



**PHOTOGRAPHER:** Etcheverry  
**DESCRIPTION:** (ENG010) VRU Not Assembled

**DATE TAKEN:** 2/13/2018

**PHOTO #:** 4





**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 2/13/2018

**PHOTO #:** 5

**DESCRIPTION:** (FLR001) Process Flare



**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 2/13/2018

**PHOTO #:** 6

**DESCRIPTION:** (ENG001-ENG006) Caterpillar G3612LE Compressor Engine Stacks

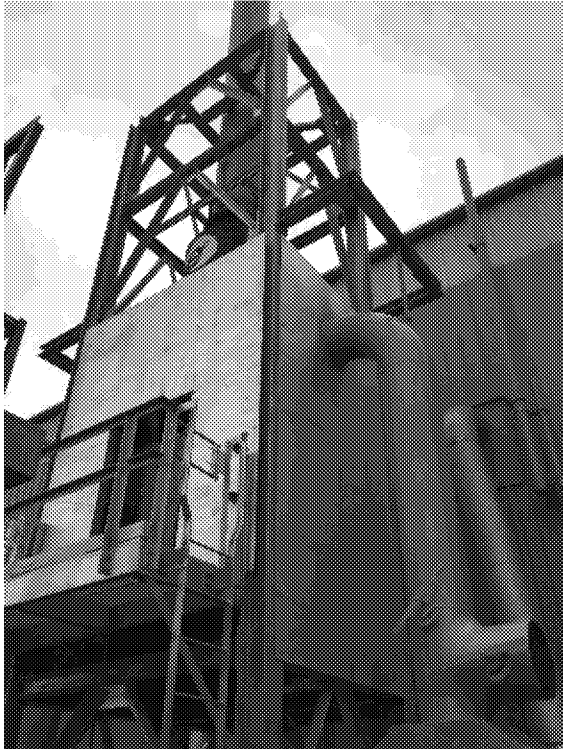


**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 4/14/2016

**PHOTO #:** 7

**DESCRIPTION:** (ENG004) Compressor Engine Oxidation Catalytic Converters



**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 2/13/2018

**PHOTO #:** 8

**DESCRIPTION:** (ENG013 & ENG014) Caterpillar G3516BLE Generator Engine Stacks



**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 4/14/2016

**PHOTO #:** 9

**DESCRIPTION:** (ENG013 & ENG014) Caterpillar G3516BLE Generator Engine Oxidation Catalytic Converters

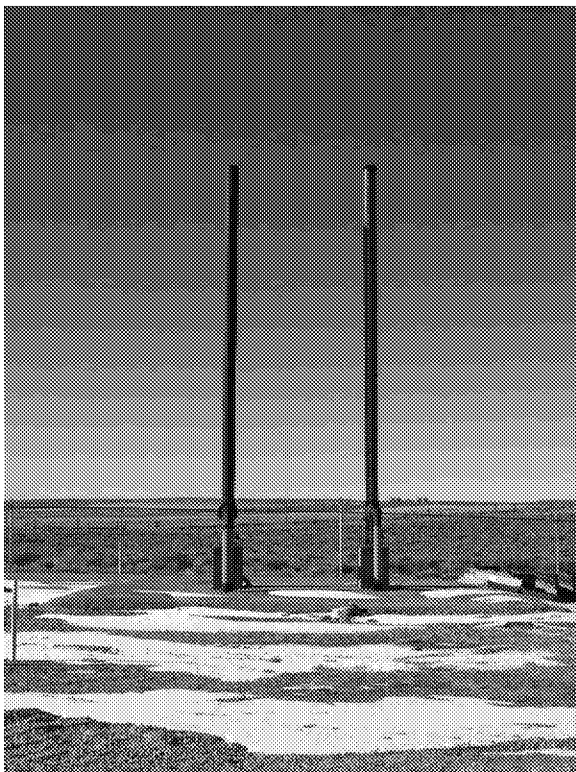


**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 2/13/2018

**PHOTO #:** 10

**DESCRIPTION:** ESD Vents

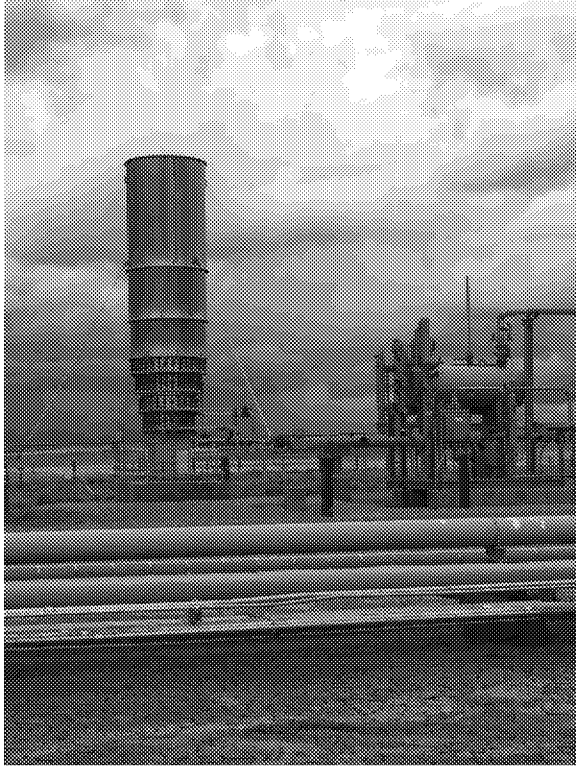


**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 4/14/2016

**PHOTO #:** 11

**DESCRIPTION:** (FLR002) TCI-4000 Combustor and knockout

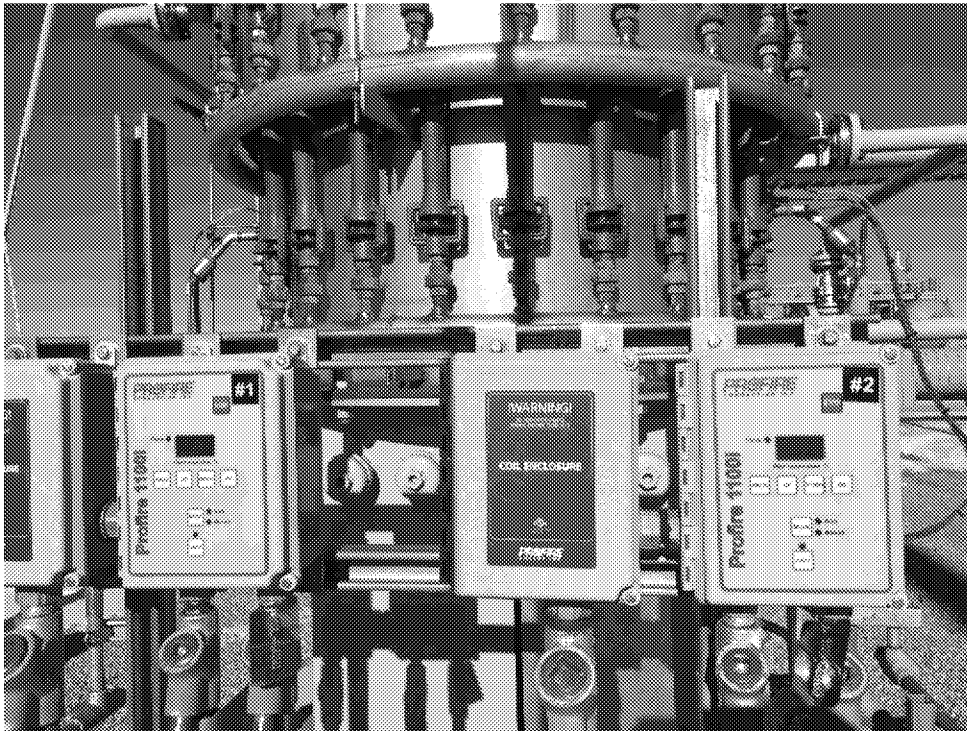


**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 2/13/2018

**PHOTO #:** 12

**DESCRIPTION:** (FLR002) TCI-4000 Combustor pilot temperature readouts

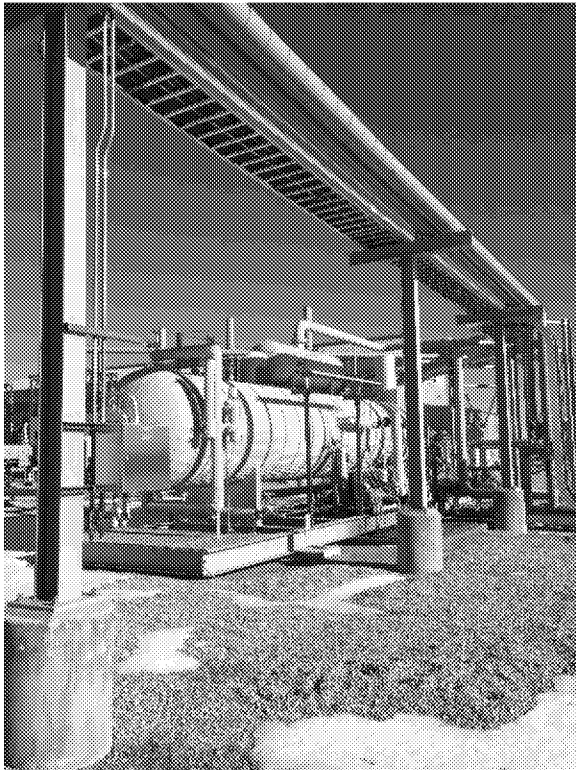


**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 2/13/2018

**PHOTO #:** 13

**DESCRIPTION:** (HET001) 3.8 MMBtu/hr Hot Oil Heater – not in use.



**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 4/14/2016

**PHOTO #:** 14

**DESCRIPTION:** (HET002) 1.6 MMBtu/hr Fuel Gas Heater – not in use.



**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 4/14/2016

**PHOTO #:** 15

**DESCRIPTION:** (TNK001-TNK003) 1000 bbl Condensate Tanks and (LUD001) Truck Load Out



**PHOTOGRAPHER:** Etcheverry

**DATE TAKEN:** 2/13/2018 & 4/14/2016

**PHOTO #:** 16

**DESCRIPTION:** (TNK004) 400 bbl Produced Water Storage Tank – not in use

